CHIO COUNCIL ANNALS 2017-2018

30 DECEMBER 2018

ADMINISTRIVIA

This is the final issue of the *CHIO Council Annals* of 2018. We apologize for the long cycles – we have learned much about how to more appropriately and more quickly publish these verdicts, and we are already operationalizing those improvements in 2019. By this release, we have **caught up with all submitted SBARs**. Thank you for all your attention, and for your participation in this vital governance exercise.

20181230 SBAR IMAGING REPORTS TEXT AND IMAGES

SBAR

S: Currently, imaging reports are only sent to Cerner via the RIS (RadNet) as text files. Because of this, all formatting, embedded images, tables, and special characters are lost in the process.

B: Several departments have expressed interest in having multimedia reports with embedded imaging. Our dictation software already has this feature, which we have been unable to exploit based on the way our current transmission to the EMR is configured.

A: Other departments, such as Lab, Cardiology, and GI already send their reports as pdf files. It is not uncommon to send reports as both txt and pdf files.

R: Recommend sending radiology reports as both pdf and txt files so multimedia and formatting will be preserved.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED.

Commentary by Park: This is in line with previously CHIO Council-approved changes to Anatomic Pathology reports. In our current state, Anatomic Pathology reports are text files by default, but with a top-level link to the full PDF report. We are hereby approving the same for Radiology.

20181230 SBAR CERNER SENSITIVITY ALERT

SBAR

S: IU Health maintains an open electronic medical record (EMR) system where patient records are available to other providers and team members across the enterprise who have been granted EMR access privileges, subject to certain limitations by job code (e.g. behavioral health records and segregation of locked psychotherapy notes folders). While an open EMR is optimal for rendering safe, quality care, it presents HIPAA patient privacy and security concerns for the ease by which protected health information (PHI) is accessible for unauthorized use.

IU Health has invested in an automated, proactive EMR audit tool, Haystack, which monitors approximately 15 million clicks in the Cerner EMR per day and sends a worklist to the Privacy team the following day; however, this is not a "real-time" tool, and privacy related investigations have continued to increase with inappropriate EMR access constituting approximately 50% of IU Health's reportable HIPAA breaches.

B: The Sensitivity Alert field that is available in Cerner today is not currently configured in our Model Experience registration conversations. The rationale behind this is not technical related. It is a client policy driven configuration that has been made available to other Cerner clients who may want additional security with patient records that are deemed high-profile or otherwise sensitive. Many Cerner clients do utilize this field today as an added measure of privacy protection and HIPAA-compliancy assurance.

Though this is not configured in Model Experience registration conversations, this is a Cerner defined field with a corresponding alert message that requires no additional creation of discern rules or configuration/customization that we would otherwise expect to impact performance. Additionally, an audit report of this alert will be available to determine its effectiveness in serving as a deterrent as well as protecting the patient's information and the organization from a potential reportable HIPAA breach.

A: To ensure that our patient's PHI is only accessed for treatment, payment, health care operations or as otherwise permitted by law, IU Health needs a mechanism to deter providers and team members from unauthorized access of patient information in the EMR, which becomes especially critical when caring for high-profile patients and individuals in the news.

A multi-disciplinary work group has evaluated various options, including the inability to safely effectuate the "alias name" policy due to the high risk associated with safe patient care, downstream effects to multiple other systems and the lack of automation (all would require manual efforts). By contrast, the Sensitivity Alert will not be dependent on multiple hand-offs and will occur in real-time serving as an instant reminder to not enter the EMR of the patient unless you have a legitimate business need.

R: IU Health Privacy and Security are requesting that the Cerner defined field for the Sensitivity Alert be activated and available for use. Privacy/Security will partner with IS, RCS, HIM and others in development of the alert prompt wording, policies & procedures, training and a communication plan to all providers and team members.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED.

Commentary by Park: This decision has had an evolution of months. As an organization, we are under increased media scrutiny thanks to the HIPAA breaches that occurred during the time of the Noblesville school shooting; we

therefore have a duty to make sure that our patients are better-served in terms of privacy and security. Multiple options were discussed, including options that would have been incredibly onerous to registration / scheduling and clinical staff alike. No alias policy, for instance, is without its risks; furthermore, no EMR (including Cerner) has the kinds of locks that some of our patients (who became plaintiffs in legal suits against us) have demanded. We are therefore left with the kinds of standard functionality that Cerner does offer.

Cerner's Sensitivity Alert tool is the least onerous and most well-adopted of all of the known security mechanisms, and this is what we will have to adopt. The no-choice nature of this decision is what has led to this particular override. It is not with pleasure (or with any sort of frequency) that I approve an alert after having worked tirelessly to cut out as many as possible; however, this is the best (and most Model-compliant) option we have available to us. We will therefore proceed in this direction.

18 DECEMBER 2018

20181218 SBAR 5P

SBAR

S: IU Health is participating in project led by ISDH, looking at the epidemiology of Neonatal Abstinence Syndrome throughout the State. Participation in the state initiative requires the usage of the 5P tool to appropriately identify these at-risk mothers in a timely, consistent, and effective manner. The 5P Tool is a Risk Assessment tool specifically designed for pregnant women, aimed at identifying past or present usage of drugs, alcohol, and tobacco in herself, partner, and parents.

B:

- Prior to the moratorium statewide OB EMR council approved
- Statewide agreement to incorporate 5P as tab on OB initial admission Powerform for optimal workflow for caregivers
- DTAs present elsewhere in admission form mapped to prevent duplication

A:

- Currently OB facilities at IUH are utilizing a paper version of this form to meet the state requirement.
- Nursing requesting 5P to be in Cerner for optimal workflow.
- 5P tool is not available in Cerner Model.
- Cerner OB contact consulted indicated state/local requirements are a good reason to allow for some localization of Model.

R:

- 5P PowerForm as tab on OB initial admission.
- Yes answers prompt action via conditional field to
    - Review Risk
    - Review Substance Use/Set healthy goals
    - Review Domestic Violence Resources
    - Consider Mental Health Evaluation

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: This appears to be an inpatient request. We will need to confirm if this will be done during the time of the mother's admission during delivery, or at other times. It is likely that this SBAR will eventually be

approved, but there remain outstanding questions. These questions will be answered through a research and decision-making process led by Ivory.

20181217 CHILD LIFE MESSAGE CENTER

SBAR

S: Multiple team members within the Child Life Department and School Program have been asked by medical providers, care coordinators, social work, staff physicians, and nurse practitioners if they could get access to Cerner messaging to enhance communication about patient needs that would be best documented in the chart.

B: Currently Child Life team members often receive referrals for specific patient care needs (kids with previous healthcare trauma, specific behavioral care needs, and significant anxiety surrounding procedures or tests) and are asked to do a pre-assessment phone call to determine the best care plan prior to arriving at Riley. If specific team members need to know about the care plan prior to it being placed in their chart, team members have shared that communicating via Cerner message is best. Our current practice is to communicate with the team via email, which often delays the creation of a best care plan. Educational Liaisons that currently serve in the outpatient clinics have access to Cerner messaging and have shared that it is a much more efficient way to get necessary school forms signed and in the patient chart.

Riley Hematology/Oncology, Rheumatology, Interventional Radiology, Urology, Sleep lab, and pulmonology have all specifically requested that school liaisons and child life specialists gain access. They have made referrals about patient care through Cerner messaging in the past that have been missed due to us not having Cerner messaging.

A: There are often times educational liaisons working with patients need to get school forms signed. Often there is a delay in getting them signed due to team members communicating via Cerner messaging when we do not have access. For instance, a team member was working with a patient who needed a signature for their IEP at school. A form was emailed to the physician to fill out, but was returned via Cerner message. The team member was not made aware that it had been filled out and returned, therefore the patient waited over a week to have access to school services.

R: As an entire team (Child Life Department and School Program), we are recommending access to Cerner messaging for better communication between medical care team to enhance patient care.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

APPROVED.

Summary of Discussion: This is within Model. Webber will conduct more research on this SBAR to find out which positions would fall under the Child Life Ambulatory services and how to add them to the Message Center. Park would like to find out who should have or should not have access to the Message Center within the organization. A large educational push would be required.

20181217 CODE SET CHANGES FOR CARDIAC ECHO AND EKG INDICATIONS

SBAR

S: In Cerner Scheduling Appointment Book -several indications are not listed to select when scheduling Cardiac Echo Testing and EKG. Users must select 'other' and then free text these indications in another scheduling field.

- CodeSets 100621 (Card Echo Indications) 100625 (Card ECG Indications)

B: Several indications need added to the code sets to be available for users to select when scheduling Cardiac Echo Testing and EKGs. Because the indications are not available to select; the user is forced to select 'other' for these indications. User than must type in the indication in a separate field.

A: Because these indications are not available to select, users are forced to select 'other' and type in the indication which is time consuming and allows for human error. This list of missing indications was created by Riley Peds Cardiology, but would be relevant to others using this code set.

Inconsistencies in the code sets were also realized during assessment:

- 'Cardiac murmur' is listed in the EKG code set, but in the Echo Code set it is listed as 'Murmur'. For consistency –request 'Cardiac Murmur' be changed to 'Murmur' in the EKG Code set of indications.
- Long QT is an indication listed in the Echo Code set but not listed in the EKG code set. Long QT should be available to select as an indication for EKGs as well.

R. Add the requested indications to the code sets. This will increase efficiency, increase ease of indication being easily accessible and decrease errors in wrong or mistyped indications when scheduling these testing exams. This list was compiled by Peds Cardiology at Riley (Card IUHP MSA2) but the indications would be useful for other groups using these code sets to schedule Cardiac Echo testing and EKGs.

There is not a specific Model standard recommendation on the number of items on a code set per Matt Wolford.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: This is a difficult problem. The more elements added to a codeset, the slower all Cerner functions that utilize that codeset will perform. As such, we need some strong guidance from Cerner on this matter – we have referred this matter to Rob Busch to (a) fully investigate Model recommendations and (b) more importantly, investigate overall performance implications. Furthermore these are universal codesets – they appear not just in scheduling but elsewhere where the orderable is used at all. For all of these reasons, Schaffer is assigned to lead a definitive investigation on this matter.

20181217 SBAR HARMONY (NIPT) RESULTS IN THE PATIENT PORTAL

SBAR

S: The Harmony test will soon be electronically interfaced with Cerner; thus, results will be available in the patient portal 36 hours after completion. Historically, results have been manually entered, allowing ample time for providers to notify the patient of results before they could see them in the portal.

B: The Harmony test is a maternal blood test used to screen for specific chromosome abnormalities in the fetus. It has been offered to patients at increased risk to have a baby with a chromosome abnormality since 2011 and is increasingly being offered to all pregnant women. Although it has improved accuracy compared to previous screening tools, false positive and false negative results do occur. Positive predictive values (chance fetus is truly affected) range from ~5--99% depending on the condition and clinical scenario. Thus, confirmatory diagnostic testing is recommended before pregnancy management decisions are made.

A: Availability of the Harmony result in the patient portal 36 hours after the result is released would negatively impact patient care. Release of results late on a Friday, on a holiday or while a provider is out of the office could result in a patient seeing her results prior to being notified by a provider. This could have devastating consequences, as a patient could misinterpret the results, which typically state "high probability, greater than 99%" when abnormal, and elect to terminate an unaffected healthy pregnancy. There are numerous reports of this occurring in the medical literature. Also, learning that a fetus has a genetic condition is overwhelming and life-changing. It is not in the best interest of a patient to learn this through an online portal rather than from a caring provider, who can provide accurate information, answer questions, recommend confirmatory testing and provide support.

R: In light of the adverse effect on patient care, the Maternal Fetal Medicine physicians and genetic counselors recommend the Harmony test results NOT be available in the patient portal (unless it is possible for the ordering provider to “release” these results to the portal after the patient has been notified of the results).

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

APPROVED.

Summary of Discussion: This and other genetic tests of this nature are to be excluded from the patient portal. We agree with the risk and thank the requestor for bringing this matter to our attention. Furthermore, we believe it in Cerner’s best interest for a best-practices/Model exclusionary list for test reporting in the Patient Portal to be developed. We are happy to partner with Cerner toward the development of such a list.

20181217 BEHAVIORAL HEALTH LCSW / PSYCHOLOGIST POSITIONS AT RILEY

SBAR

S: Currently the BH LCSW and Psychologists (Therapists) in Riley Peds Psych are not in a consistent Cerner position. Because of this, they are not able to begin to transition from PowerNote to Dyn Doc. This was going to occur in

2018 with the Behavioral Health Project, but since it is delayed, the clinic leadership, Dr Kelda Walsh and Chris Kellums, would like for this group to begin transitioning to Dyn Doc now using standard provider viewpoint. Goal is to assist with start education and adoption of Dyn Doc leading up to BH project implementation.

B: LCSW and Therapists have not been assigned consistent positions, nor do most currently have access to Dyn Doc functionality. Training them to use the workflow and Dyn doc is impossible due to the Cerner positions assigned which do not have Dyn Doc functionality. This was discovered when a coach was requested to do a 1:1 session for Dyn Doc and was not able to complete.

A: Review of positions done in CERT:

- Majority in either AMB BC Non clinical support or AMB BC Clinical support
- AMB BC Non clinical support – have access to Clinical Support Workflow Viewpoint and PowerNote but not Dyn Doc
- AMB: BC Clinical Support – have access to Clinical Support Workflow Viewpoint and PowerNotebut not Dyn Doc
- OE Psych Physician: One PSYD in this position currently
- Per Shelly Gentry, clinic manager, those in each position other than the OE Psych Physician has functionality to complete their job responsibilities but do not have access to Dyn Doc
- It is unclear why one therapist was placed into the OE: Psych Physician position

R: The recommendation is to move the Therapists and LCSW who work in Riley Peds Psych amb clinic to the AMB: BC Non Clinical Support position – majority are in this position – but not all. Clinic leadership can provide the list of Therapists/LCSW who work in the AMB clinic at Riley .

- Add the OP Psychiatry workflow page to the position
- Add Dyn Doc functionality to the position
- Model Recommendation Position: BH: Therapist/Psychologist
    - This is the position they will be moved into at BH project implementation go live.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

APPROVED / FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: We thank the requestor for bringing this matter to our attention. It is the correct thing to build the positions into the future state – the problem being that we are going to have to implement this systemwide/statewide (as there is no way to parse out these positional changes on a per-facility basis). Wells is therefore assigned to lead an investigation on what is needed to bring the Behavioral Therapist and Social Worker positions into Cerner Model alignment.

20181217 SBAR MAMMO NOTIFICATION

SBAR

S: Volumes are continuing to grow in the Saxony mammography department; therefore, available time slots for screening and diagnostic mammograms are not as readily available as customers have become accustomed to.

The schedulers keep a list of customers who could greatly benefit from having an earlier appointment time than what is available.

Staff monitor the schedule to check for appointments that have become available either by cancelling or rescheduling, and move patients up as possible. However, there is not a real time, electronic notification process for these appts.

B: The Saxony Radiology department has earned some of the highest patient satisfaction scores in the system, largely because of the ability to accommodate patient appts in a very timely manner.

While staff try to review the schedule for openings, they sometimes do not have time to do it frequently enough to catch all the opportunities to move patients into open appt times. In addition, if a patient cancels and a scheduler is searching for an appt, they may see and fill that appt with a new patient not realizing that another patient on the list might benefit from moving into the sooner appt.

A: In order to maintain the highest level of patient care and satisfaction, the radiology (mammography) dept has identified a need be notified, in real-time, when vacancies have appeared in the schedule. Patients can then be moved up as needed or requested. This ensures patient satisfaction, efficiency, and responsible resource utilization.

R: Turn on the function of a notification label at the Scheduling Action of Cancel or Reschedule that would automatically print to a label printer in the Mammo tech area at Saxony.

- Location: Radiology Mammo XH (Resources: SAXH MG1 and SAXH MG2)
- Zebra label printer: Z2295
- Appointment types: MG Screening, MG DEXA SCREEN SAXH, MG BIO, MG Diagnostic, MG US

This functionality is already set upa nd utilized in the radiology NFL Combine build.

The label that we would use is the “NFL Patient Info Label”. It already exists, and shows the order, Patient Name, DOB, and original appointment time. Technologists could quickly identify the vacancy left by cancellation or reschedule.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

DENIED / REVERT TO MODEL / FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: Cerner has scheduling abilities similar to what is being asked here. Furthermore, it is high time for us to investigate the highly custom build we have for the purposes of the NFL Combine – there is definitely

mileage to be had in modernizing in that particular space. Finally, we must use a system approach here, and it must reflect Cerner Model. Therefore, Ivory is assigned to lead the investigation in this space.

20181217 SBAR OP EATING DISORDERS EDQLS DOCUMENT TYPE

SBAR

S. Request new Document type: OP Eating Disorders EDQLS added for use at Charis Center

B. JCAHO requires Charis Eating Disorders Clinic implement a Quality of Life tool for patients. This specific Document Type would allow staff to scan this required document to a specific folder.

A. New Document Type would allow for a single place for these required documents to be stored in the EMR. This would increase efficiency in providers finding these required documents to review every 3 months and allow them to be in a single location if requested for review by JCAHO.

Model hierarchy per Ben Rodenbeck for Behavioral Health (Nothing specific found for Eating Disorders) will be when BH project resumes:

- BH Clinic Patient Summary
- BH Clinic Provider Initial Note
- BH Clinic Provider Progress Note
- BH Clinic Therapy Initial Note
- BH Clinic Therapy Progress Note
- BH IP Provider Admission Note
- BH IP Provider Progress Note
- BH IP Provider Discharge Note
- BH Clinical Summary
- BH Discharge Instructions
- BH Crisis Evaluation
- BH Psychological Testing Note
- BH Psychological Testing Progress Note

R. Recommend allowing this build to give this group a specific place to scan and store these required documents.

If not approved – recommend the use of the current OP-Psychiatry Secure Forms with EDQLS as Subject

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

DENIED / FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: This appears to be a matter better suited either for the Cerner Clipboard or for Twistle (which we now have an enterprise contract for). We are therefore not approving this request as written at this

time, but only because we believe that Clipboard or Twistle would be a much better fit. Webber is assigned to lead the investigation in this space.

20181217 SBAR PRE-PROCEDURE H&P DYNDOC NOTE TEMPLATE

SBAR

S: Several proceduralists have identified the need and requested a Pre-Procedure H&P note template. Some of these physicians are in uplifted positions and some of them not. Specifically, the request generated from interventional radiology

B: Proceduralists need to complete a Pre-Procedure H&P prior to the procedure if there is not one already documented within the previous 30 days. This Pre-Procedure H&P has different requirements than an Admission H&P. Review of Systems, Family History, Present on Admission, and Malnutrition are not necessary in the Pre-Procedure Note. It would also make sense to add in sections for planned procedure instead of Chief Complaint.

A: There is not a Pre-Procedure H&P currently built in the system. A Pre-Procedure note template could be built in a generic enough fashion to serve multiple procedural specialties including Interventional Radiology, Cardiology, GI, Pulmonary, Surgical specialties including OB/GYN, and Anesthesia.

R: Build a generic Dynamic Documentation Pre-Procedure H&P Note template that can be leveraged for multiple procedural specialties. Specialties can leverage EAT/GAT and ST to include specialty specific content if necessary beyond a generic template.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

DENIED.

Summary of Discussion: The way that DynDoc operates, if you do not fill out a section it simply won't appear in the final document for most part. As such, it should still be possible to utilize the pre-existing H&P note templates for those reasons. Furthermore, **there is no need to generate a new note template type in order to have a template pinned to the Workflow MPage view**; this misunderstanding appears to have factored into the submission of this request in the first place as well. Busch is assigned to lead an investigation into the Model recommendation space on this matter.

20181217 SBAR PAIN MANAGEMENT CARE TEAM SERVICE LINE TYPE

SBAR

S: Clinics and hospitals across the organization are able add specific services lines as a care team for the patients that they treat. One service line that is missing from this list of Care Teams is Pain Management. Not only can this

service line not list themselves as a Care Team for their patients, but clinics and hospital across the organization are not able to accurately label patients that are being treated for chronic pain by a provider.

B: Care Teams was established as a workflow with the upgrade to the demographic bar back in early September, 2018. Service lines have been instructed to start labeling themselves as part of a care team for the patient so as to inform other providers that they are treating the patient, thus creating a network of communication from provider to provider.

A: Because Pain Management is not a listed service line with theCare Teams component, not only is the Pain Management clinic within IUHP not able to accurately label themselves as a care team to a patient, but other offices are not able to accurately label patients that are receiving Pain Management care. This can cause issues, specifically when we are tracking Chronic Opioid Therapy and Pain Management contracts within our offices and hospitals across the IU Health system.

R: Add Pain Management as a service line with the Care Team component in the Demographic Bar of Cerner. This will allow multiple clinics to be able to accurately address and label a patient's care team and treating providers when it comes to their patient's pain management.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

APPROVED.

Summary of Discussion: This is Model. We are pleased to be able to grant this request.

20181217 PEDIATRIC ANTIMICROBIAL STEWARDSHIP

SBAR

S. All pediatric IV antimicrobials at IU Health are prescribed in Cerner using Pediatric Antimicrobial PowerPlans, as is consistent with our current culture of safety and dose-optimization. Required fields within the order are dose, dose unit, route, and frequency. There is no field to document indication. There is no prompt for the prescriber to determine duration. In order to evaluate appropriateness of indication/duration, a pharmacist task fires at 72 hrs after order entry. This stewardship strategy has been formally reviewed at Riley, and has had zero impact on prescribing. Likewise, there is no way for antimicrobial stewards to query orders (prospectively or retrospectively) for indication, which is a national stewardship recommendation.

B. Including antimicrobial indication at the point of electronic order entry is recommended by the CDC and NQP, and is sited in the literature as an instrumental intervention.

Likewise assessment of duration of therapy is critical to prevent overuse of antibiotics. As such, automatic discontinuation of empiric antimicrobials at 48-72 hrs has been successfully used at other pediatric academic medical centers using Cerner, resulting in statistically significant decreases in 5 of 6 antibiotics monitored, and without causing patient harm.

A. For indication, Cerner Model has functionality for required indication field for all antimicrobials, but this technology has not been implemented at IU Health.

For duration, Cerner Model does not have a standardized method or solution for creating a required duration field. The current pharmacist task has failed to aid de-escalation of broad-spectrum antibiotic therapy at Riley.

R. For indication, it is recommended to implement the Cerner Model for required antimicrobial indications system-wide.

For duration, it is recommended to:

1. Create a limited list of additional Pediatric PowerPlans viewable at Riley for Empiric Therapy-Drug Name with automatic stop-dates for the following drugs: vancomycin, meropenem, cefepime, piperacillin/tazobactam, ceftriaxone, IV acyclovir, IV SMX/TMP, ampicillin/sulbactam, IV metronidazole [24 hrs], gentamicin, ampicillin [36 hrs], and micafungin, amphotericin B [96 hrs]. Of note, non-empiric (directed) antimicrobials would continue to be ordered on the current PowerPlans, with no auto-discontinue, to accommodate treatment courses for known diagnoses.
2. Discontinue the existing 72-hr antimicrobial pharmacist task from firing on these selected drugs at Riley.
3. Add a pharmacist task to fire at 24-hrs prior to antibiotic auto-discontinue on an Empiric Order set to remind the pharmacist of the forthcoming auto-discontinue.
4. Create a Smart Zone alert that will fire to clinicians 24 hrs before auto-discontinuation.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

DENIED / FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: This highlights the fact that (a) we do not have the Cerner Model solution (Cerner Antimicrobial Stewardship) in place and (b) subsequent to that, even having the Model fields in place (*e.g.* required medication indication field) will not necessarily do anything. We will need to circle back with Dr. Webb and the System Infection Prevention team on this matter as well. Park is assigned to do just that.

20181217 SBAR PROBLEM MANAGEMENT ON REHAB POSITIONS TO MODEL

SBAR

S: Rehab positions enter their problems through a Problem control on their designated power forms used for clinical documentation and billing. The problems are entered as a medical classification which in turn drives the problems to display on the global problem list.

B: During the Hospitalist More Uplift, one pain point discovered at most facilities during workflow analysis, is that the Rehab problems are displaying on the problem list as a medical problem. This requires the Hospitalists to edit the problem list or delete the associated rehab problem from their note.

A: Resources gathered from Cerner, Coding, and Rehab Clinical leadership to review the current workflow. After determining Cerner Model and downstream impacts, entering problems with a classification of Interdisciplinary is Cerner Model and there is no concern from a reimbursement perspective.

R: Update the Physical Therapy, Occupational Therapy and Rehab Management positions to default to the Classification of Interdisciplinary Problems as Cerner Model recommends.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

APPROVED.

Summary of Discussion: This is within Model. Matt Wolford and Ben Rodenbeck are to roadmap this within our overall Model reversion project.

20181217 SBAR RELATED RECORDS / NEONATOLOGY AND MFM

SBAR

S. Cerner users that work with neonatology and/or maternal fetal medicine do not have access to "Related Records" in their toolbar to quickly review mother's record.

B. The NeuroNICU coordinator is in the AMB: Research Clinical. The pediatric general surgery coordinator is in the AMB: Research Non-Clinical. Both of these users work with providers who consult and care for both mother and baby. They're responsible for collecting and documenting prenatal information (i.e. diagnosis and treatment plans) which requires them to go between mother and baby's chart. Since their Research position doesn't have "Related Records", they've developed workaround for getting the information.

A. The PowerChart maternity team and Cerner were consulted. Cerner model does not have Related Records in the Clinical Research positions; however Related Records is specifically intended for the maternity space. PCM team does feel the request is valid to have access to mother's record as well as the baby's.

R. Add Related Records to the toolbar for these two Cerner users as part of their job responsibilities.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: Ivory will lead the investigation in this space.

20181217 SBAR SOCIAL WORK NOTES

SBAR

S: IU Health Integrated Care Management leadership requesting all Social Work notes blocked from Non-IU Health employees. We became aware of this while requesting access for Non-IU Health facility and home care vendors to access Cerner for post-acute placement needs. We were not aware that others already had access to these notes types. Social Work notes in Cerner are marked as "do not print." It is not current practice for these note types to be shared with post-acute placement vendors.

B: Currently Non-IU Health employees can view Social Work notes but access is irrelevant to the business need.

A: The social work notes may contain sensitive details of domestic abuse, adult and child abuse/neglect and institutional abuse/neglect that we need to protect from non-IU Health access. Social work advocates for the oppressed and the content of the Social Work note type is not relevant for Non-IU Health employees to view.

R: Block access for non-IU Health employees to all Social work notes.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

DENIED / AWAIT PROVIDER PORTAL.

Summary of Discussion: This is an SBAR of very noble intent. We recognize that we have a gap in communication with both referring providers as well as with SNFs/LTACs. The problem here is that generally, giving access to the production EMR is not the accepted national best-practice approach; instead, most institutions choose to go with the EMR vendor's provider portal solution. We are choosing to go down this road as well; it is the appropriate Model solution and kills many proverbial birds with one proverbial stone.

20181217 SBAR VTE RISK ASSESSMENT ADDITION

SBAR

S: Current gap with a nurse driven patient risk assessment for VTE risks in obstetric patients.

B: Anthem has added a bonus measure for several Maternal Safety Bundles for 2018. It is known that historically, Anthem issues a bonus measure in one year, and then makes it an actual measure the next year. This Anthem measure directly impacts our reimbursement. The Maternal Venous Thromboembolism Prevention bundle includes a metric under recognition and prevention that states "apply standardize tool to all patients to assess VTE risk at time points designated for antepartum hospitalization and after a c/s or a vaginal delivery.

A: The provider does a specific VTE risk assessment after a delivery and during an observation stay. There is not a nursing risk assessment completed to identify risk factors prior to delivery. This piece is specifically required by Anthem per ACOG and AAP guidelines. Please see the attachments for the required items.

R: Please add a required field titled "Adult DVT Risk Assessment to the OB Initial History AdHoc form to ensure all obstetric patients within IU Health are being assessed for VTE risk. By doing this, we will ensure that we comply with the Anthem measure which promotes patient safety and directly impacts our reimbursement positively. Meeting this measure also ensures that we meet The Joint Commission and the Indiana State Department of Health requirements for OB risk assessment screening on ANY OB patient.

CHIO COUNCIL DELIBERATION

Discussed live at the 17 December 2018 CHIO Council Session.

VERDICT

DENIED / FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: The overall long arc of our EMR is toward a practice-driven EMR, not an EMR that drives practice. We have spent monumental amounts of energy simply doing away with unnecessary required fields, and any request to add a new required field – no matter how well-intentioned – will be very sharply questioned. This questioning is necessary for us to have the healthy, minimalist EMR ecosystem that our providers and allied health professionals so desperately need and deserve. Ivory will lead the investigation in this regard.

26 NOVEMBER 2018

20181030 SBAR ARM SPAN

SBAR

S: There is not a way to document arm span in Cerner today. Clinical support staff in the spina bifida clinic at Riley are using the "height" field with the "height method" field as "estimated", "segmental" or other choices (so it is not standard what is being used today) to indicate arm span. There are situations where both height and arm span are collected and they cannot be documented and identified separately in those situations.

B: Patients with disabilities, particularly the hundreds of spina bifida patients followed at Riley, often are wheelchair-bound and their lower body is significantly atrophied, making height or length measurements unreliable, as these measurements underestimate their size. Arm span is more useful for biometric calculations (i.e. renal function – GFR) in this population. We have been collecting arm span data, along with height/length data, if possible, for these patients for years but there is no room in the EMR to document arm span. Clearly, this will be a field only applicable through those with abnormal body habitus such as wheelchair-bound patients. Today, arm span is collected and stored in a separate IRB-approved database, not accessible via Cerner or easy clinical use.

A: The Body Measurements section/form of the Adult and Pediatric CVR currently has a field for documenting height in centimeters, but not arm span in centimeters. Rob Busch provided a link to the Cerner Model DTA Audits documentation (https://wiki.cerner.com/display/public/ModelExperience/DTA+Data+Audits) but we were unable to find anything similar to "arm span", "armspan", "wing span", "wingspan", or "reach". This has been reported to Rob as well.

R: Consider adding arm span in centimeters as a separate field on the Body Measurements section/form of the Adult and Pediatric CVR.

CHIO COUNCIL DELIBERATION

Discussed live at the 26 November 2018 CHIO Council Session.

VERDICT

DENIED / FURTHER WORK REQUIRED.

Summary of Discussion: This is indeed a nationwide standard; the measurement does drive dosing calculations and can be critical in the right milieu. We will need to engage Rob Busch and Cerner resources for further guidance and for further exploration of the correct approach that fits with both the letter and the spirit of Model (even if no Model exists in this space yet). The more we have customized, the more we have suffered – we must leave the path of suffering even if it means that we must do more investigation now.

20181105 SBAR OPTHALMOLOGY PRESCRIPTIONS

SBAR

S: We are on paper charts still- not EMR. We are prescribing patients glasses and medication on paper prescription pads. Patients often call and we have to find the paper chart to assist them because they are not scanned into Cerner – they are ¼ the size of regular paper

B: We are on paper charts, we take our paper exams and have them scanned into the ophthalmology forms documents folders in clinical notes. We would like a separate folder for prescriptions so that we can easily find them when patients call with questions or because they lose them.

A: We need a document folder created in clinical notes for ophthalmology prescriptions.

R: Create an ophthalmology prescriptions folder.

CHIO COUNCIL DELIBERATION

Discussed live at the 26 November 2018 CHIO Council Session.

VERDICT

DENIED / AWAIT UPLIFT CORE PROJECT.

Summary of Discussion: This is not a true denial; it is actually a recognition of the fact that we are still in the process of building out the appropriate foundation to make these prescriptions and other parts of a true Opthalmology EMR module work correctly. We will be attacking these matters as a priority in the first quarter of 2019.

20181019 SBAR ASC QUALITY DATA REPORT POWERFORM

SBAR

S: Bloomington Endoscopy Center (BEC) is implementing Cerner on 10/30/18 and is requesting a quality reporting form. Currently, they are the only Ambulatory Surgery Center (ASC) using IUH RCIS for billing and claims.

B: The Ambulatory Surgical Center Quality Reporting (ASCQR) Program is a pay-for-reporting, quality data program finalized by the Centers for Medicare & Medicaid Services (CMS). Under this program, ASCs report quality of care data for standardized measures to receive the full annual update to their ASC annual payment rate.

Measures for CY 2019 Payment Determination:

- ASC-1 Patient Burn
- ASC-2 Patient Fall
- ASC-3 Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant
- ASC-4 All-Cause Hospital Transfer/Admission
- ASC-8 Influenza Vaccination Coverage among Healthcare Personnel
- ASC-9 Endoscopy/Polyp Surveillance: Appropriate Follow-Up Interval for Normal Colonoscopy in Average Risk Patients

- ASC-10 Endoscopy/Polyp Surveillance: Colonoscopy Interval for Patients with a History of Adenomatous Polyps – Avoidance of Inappropriate Use
- ASC-11 Cataracts: Improvement in Patient's Visual Function within 90 Days Following Cataract Surgery*
- ASC-12 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy

A: Because the other IUH ASCs use a third party vendor to obtain this data, a solution is not already available.

According to Rob Busch and Open House, Cerner Model has an ASC Quality Data Reporting PowerForm (see screenshot below).

R: Build the Cerner Model ASC Quality Data Reporting PowerForm for the BEC to ensure they can accurately report quality measures to CMS. Structure data capture to exclude the information from the legal medical record per Risk Management.

CHIO COUNCIL DELIBERATION

Discussed live at the 26 November 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: We are pleased to support this critical Model compliance project. We must ask the question though: do we have enough of Model built out foundationally for these Model PowerForms to work correctly? We wish to provide the best possible experience for our providers in this respect. We ask for Rob Busch to follow up.

20181105 SBARS UNION THERAPEUTIC SUBSTITUTIONS

SBAR 1: RIFAXIMIN

S: RifAXIMin (Xifaxan) was removed from Union Health Formulary with a therapeutic interchange of RifAXIMin 550 mg PO BID to Lactulose 20 gm (30 ml) PO four times daily.

B: RifAXIMin was removed due to cost savings and literature supporting RifAXIMin for prevention of overt hepatic encephalopathy as second line agent and not for the treatment. Patients may use their home supply of RifAXIMin if available.

A: The two options are:

1. Keep current State – MD orders rifXAMin. Pharmacist then has to validate, d/c and then enter order for lactulose
2. Build therapeutic sub so when rifXAMin is ordered it is changed to the correct lactulose dose prior to physician sighning the order. System shows therapeutic sub occurred and pharmacy can validate order easily.
    a. RifAXIMin 550 PO BID lactulose 20 gm (30 ml) PO four times daily

R: Implement Option 2: This will save time for physicians, pharmacy and nursing while getting the medication needed to the patient in an more efficient manner. This will follow all other therapeutic system subs, but will only be activated for Union Hospital (Terre Haute and Clinton) since IUH still has rifAXIMin on Formulary. It will decrease nursing call to pharmacy questioning the substitution (even though we type tx sub in comments we still get calls)

SBAR 2: PANTOPRAZOLE

S: Pantoprazole continuous infusions were removed from Union Health Formulary with a therapeutic interchange of pantoprazole 80 mg IV Push x 1 followed by 8 mg/hour to Pantoprazole 80 mg IV Push then 40 mg IV Push Q12 hours.

B: Pantoprazole continuous infusions were removed due to cost savings and literature supporting no risk of rebleeding with intermittent bolus dosing compared to continuous infusion. The literature even suggests better outcomes with intermittent bolus.

A: The two options are:

1. Keep current State – provider orders pantoprazole continuous infusion. Pharmacist then has to validate, d/c and then enter order for pantoprazole IV Push
2. Build therapeutic sub so when pantoprazole continuous infusion is ordered it is changed to the correct pantoprazole IV Push dose prior to provider signing the order. System shows therapeutic sub occurred and pharmacy can validate order easily.
    - Pantoprazole 80 mg IV Push followed by 8 mg/hour (pantoprazole 80 mg/100 ml NS) -> Pantoprazole 80 mg IV Push then pantoprazole 40 mg IV Push Q12 hours

R: Implement Option 2: This will save time for providers, pharmacy and nursing while getting the medication needed to the patient in a more efficient manner. This will follow all other therapeutic system subs, but will only be activated for Union Hospital (Terre Haute and Clinton) since IUH still utilizes pantoprazole continuous infusions. It will decrease nursing call to pharmacy questioning the substitution (even though we type tx sub in comments we still get calls).

SBAR 3: GEODON

S: Geodon IM was removed from Union formulary and a substitution for Zyprexa IM was approved by Union hospital pharmacy and Thearapeutics committee.

B: Geodon was removed since being added on the NIOSH hazardous drug list requiring certain safety precautions to use.

A: The two options are:

1. Keep current State – MD orders Geodon. Pharmacist then has to validate, d/c and then enter order for zyprexa
2. Build therapeutic sub so when Geodon IM is ordered it is changed to the correct zyprexa IM dose prior to physician signing the order. System shows therapeutic sub occurred and pharmacy can validate order easily.
    a. Geodon 5 mg IM -> Zyprexa 2.5 mg IM

b. Geodon 10 mg IM -> Zyprexa 5 mg IM
c. Geodon 20 mg IM -> Zyprexa 10 mg IM

R: Implement Option 2: This will save time for physicians, pharmacy and nursing while getting the medication needed to the patient in a more efficient manner. This will follow all other therapeutic system subs, but will only be activated for union hospital since IUH still dispenses Geodon IM. It will decrease nursing call to pharmacy questioning the substitution (even though we type tx sub in comments we still get calls)

CHIO COUNCIL DELIBERATION

Discussed live at the 26 November 2018 CHIO Council Session.

VERDICT

APPROVED.

Summary of Discussion: Like many therapeutic substitution requests for Union Health in the past, we are pleased to be able to provide customer service in this regard. All 3 requests are approved for the "Option 2" therapeutic substitution builds.

20181115 SBAR TRILOGY VENT ORDERS

SBAR

S: Respiratory Care need order parameters added to an existing order.

B: Riley purchased new ventilators and once they were in use the ordering physicians realized they didn't have the appropriate parameters in the existing ventilator order to complete an accurate vent order for this device. Currently, MDs are ordering incorrect settings and discussing actual needs with the RT.

A: Without the addition of the order details, physicians will continue ordering this vent using inappropriate work-around orders that do not provide the details the RT needs in their vent orders.

R: Respiratory Care is requesting addition of the requested vent parameters within the Conventional Ventilator order so as to provide appropriate patient care and not risk misinterpretation/miscommunication of physician intent on a work-around order.

Please see attached document below for screen shots and parameter details.

CHIO COUNCIL DELIBERATION

Discussed live at the 26 November 2018 CHIO Council Session.

VERDICT

APPROVED / FURTHER WORK REQUIRED.

Summary of Discussion: It is our belief that this request already exists in the backlog, and that we have already approved it. If it does not already exist, we approve it now. Webber is assigned to investigate and escalate as necessary.

20181029 SBAR TPA DATA COLLECTION ON TRANSFER PATIENTS TO SUBMIT TO CMS

SBAR

S: We have no current way to collect electronically date/time of tPA administration on patients that transfer to IU Health and receive this drug prior to arrival.

B: The collection of this data impacts the accuracy of one of the stroke core measures, STK-5. Due to changes made in Cerner, Clinical Informatics and the Quality department have chosen to collect information in regards to this core measure to submit to CMS through the eCQM program. Therefore, there is a need to be able to capture this data accurately and electronically (no Model approach exists).

A: Currently this data is found in a physician note or transfer note, not in a codified field that can be captured electronically. By adding a codified field in the Cerner 'ED Stroke 1 Form' this information can be accurately documented by an RN, and then collected electronically to submit to CMS. The ED Stroke 1 Form already has multiple questions related to the administration of the medication tPA.

R: A simple question (did the patient receive tPA prior to arrival?) with a radio button to activate the opening of the codified field (date/time, mm,dd,yyyy & hh,mm) could easily facilitate this data accuracy and collection.

CHIO COUNCIL DELIBERATION

Discussed live at the 26 November 2018 CHIO Council Session.

VERDICT

DENIED.

Summary of Discussion: In our preliminary investigation of this matter, it turns out that disturbingly few people know about the "ED Stroke 1 Form" to begin with – indicating that an addition of a field to this form may not have the desired effect. We do not know what the end user impact to this change would be, and we also have never had success at this institution by adding yet more data fields for already-overburdened clinicians to enter in.

Asking clinical staff to regurgitate information that already exists – or should exist – elsewhere simply for ease of collection for regulatory purposes is not a good use of time or resources. We must come up with better ways to support our clinical end users. Schaffer is assigned to lead a fuller investigation on this matter.

20181029 SBAR IMPROVE DATA CAPTURE FOR ECQMS

SBAR

S: eCQMs require codified documentation to capture both compliance with and variance from usual care. Compliance is readily obtained as a byproduct of documentation; IU Heath providers had used the Quality sentence in PowerNotes to documentation variations from standard treatment. When PowerNotes are retired, the structured documentation for eCQMs will be lost.

B: With Cerner's move to Dynamic Documentation, the Model approach to capturing practice variances shifts exclusively to PowerForms accessed via the Quality component. At IU Health, the Quality component is included on a separate provider view, however, it is now possible for the component to be included on the workflow mPage, which significantly improves its utility.

A: Many of IU Health's eCQM "misses" occur because variation from usual practice is documented only in a narrative note. Incorporating the Quality component into the workflow mPages (along with provider education) increases the likelihood of PowerNote use to capture the information in codified fields.

R: Build a workflow Quality component and include it as an optional component (i.e., do not default display) on all inpatient provider and pharmacist workflows.

CHIO COUNCIL DELIBERATION

Discussed live at the 26 November 2018 CHIO Council Session.

VERDICT

DENIED / FURTHER INVESTIGATION REQUIRED.

Summary of Discussion: This is a kind of change that will have profound clinical and operational impact. As such, the highest level of stringent change control would be necessary. Clinical and Quality leaders must have their chance to weigh in on this, and the MACRA committee must also become involved. We will continue the discussions at those forums before we proceed in any direction.

29 OCTOBER 2018

20180918 SBAR INDIANA TOBACCO QUITLINE (ITQL)

SBAR

S: There is currently an electronic referral to the Indiana Tobacco Quitline (ITQL) in Cerner that is built into the Social Histories form. The current solution is limited to the *intake* process in the *ambulatory* setting and is not easily utilized beyond that process and setting. Also, this form is custom and is being removed as part of our return to model and nursing uplift. There is a desire to replace this workflow and to provide a workflow for others (respiratory therapists, providers, *etc.*) to be able to place an eReferral in other settings.

B: The ITQL is a quit assist program provided by ISDH using trained quit coaches and other services. During intake in the ambulatory setting, while filling out the Social Histories form the MA or Nurse has the ability to 1. Ask if the patient is ready for a quit attempt, 2. Obtain consent for sharing demographic data with ISDH, and 3. Initiate an eReferral to ITQL. The Social Histories form contains content to prompt and DTA's to document these 3 items. The electronic referral is an HL7v2 message-based connection with Indiana State Department of Health's (ISDH) EMR, Optum. ITQL then enrolls the patient in the program and report a completion note back to the patient's chart via HL7v2.

Since the initiation of this eReferral, IU Health has increased its referrals to the Quitline from ~10/month to ~300/month. A replacement for the current workflow is desired to continue this eReferral program.

A: Data shows that quit attempts are more likely to be successful when a thorough readiness to quit assessment is completed prior to initiation of that quit attempt. The current solution is built in an intake form at a time in the workflow where an adequate quit assessment is difficult to complete. Respiratory therapists there is no model solution known for eReferral to state tobacco quit lines.

R: The recommendation is to create a mechanism to generate an eReferral that adheres to Model principles and is flexible enough to be leveraged by different providers at different points of the workflow. One possible solution would be to leverage the current DTA's to create a PowerForm to be used *ad hoc* or that can be called by an order for "Referral to Tobacco Quitline". The eReferral could then be triggered upon signing that form.

CHIO COUNCIL DELIBERATION

Discussed live at the 29 October 2018 CHIO Council Session.

VERDICT

APPROVED.

Summary of Discussion: Some of the technical work in this regard has already been done; after all, most of the DTAs already exist. The ITQL is state-specific, and cannot be fully accounted for in Cerner Model (Model, after all, does not specifically endorse state-specific solutions). That being said, we must create a mechanism that does continue to comply with both the spirit and the letter of the law of the land that is Model. Schaffer is assigned to continue this important investigation.

20180820 SBAR 310 FIO2 ISSUES

SBAR

S: Oxygen DTAs on both the I-flowsheet and Resp Care PowerForm render to Results Review as a FiO2 line item with a percent (%) unit of measure. The % unit measure is new (there was previously no unit of measure as the line item of FiO2 represents the unit of measure). We do not know when or why the % unit of measure was added to these DTAs.

B: Respiratory Care has always documented oxygen levels in FiO2 (fraction of inspired oxygen) which rendered to Results Review as a decimal. We had upper and lower limits (in decimals) set on our FiO2 DTAs on both the I-flowsheet and the PowerForm. It did not render as a percent (%). The upper and lower limits are set as 0.21 and 1.0 expressed as FiO2, but the % unit of measure changes the intent of the documentation and makes it look like the patients are only on 1% oxygen when they are actually on 100% oxygen (the upper and lower limits don't capture it because it reads it automatically as 1.0 expressed as FiO2).

A: Respiratory Care needs one rendering or the other, but not both in the same DTAs. We are accustomed to the FiO2 format; however, it impacts a lot of other PowerForms (see link below) as well as Lab documentation.

R: Respiratory Care is requesting all DTAs housing oxygen settings be on the same unit of measure. We would prefer FiO2, but if that does not meet Cerner Model, at least get all oxygen DTAs to the same unit of measure and we can teach to the rationale. If the option is to go to % as the unit of measure, the line item description on Results Review will need to be changed to Oxygen Setting (or something to that effect) vs. FIO2.

The Excel file below represents all PowerForms with oxygen documentation; the Word file below includes screen shots from the original request. (Cherwell ticket 2571276)

CHIO COUNCIL DELIBERATION

Discussed live at the 29 October 2018 CHIO Council Session.

VERDICT

REVERT TO MODEL.

Summary of Discussion: It would have been very useful to this Council to have had an investigation of what Model entails prior to the submission of this SBAR, as we **must** get to the true Model recommendation on this. We agree that there is risk and that we should not have both decimal and percentage as measurement units on the same DTA. We therefore will lead an investigation to come to a conclusion as to just what Model recommends. **Either way this will not be without risk, and will have to be done carefully and slowly**.

20180822 SBAR CAR T-CELL CERNER FLAG

SBAR

S: The BMT Program at University and Riley is now approved to administer CAR T-cell Therapy to relapsed leukemia and lymphoma patients. The cellular therapies which are FDA approved are Kymriah and Yescarta. Both of these 'living drugs' come with a unique set of side effects which need to be quickly addressed with intervention, especially when a patient arrives for urgent/emergent care.

B: Patients who have received Kymriah or Yescarta are at high risk of experiencing cytokine release syndrome and neurotoxicity. This needs to be part of the differential diagnosis when a patient enters the system for care. Also, both of these drugs are monitored by the FDA under REMS (Risk Evaluation Mitigation Strategy), so any adverse event known must be reported to the FDA.

A: There needs to be a consistent way to flag these patients within Cerner, so that a provider or nurse has awareness of the patients' treatment received. It is possible that patients will EVENTUALLY receive this treatment outpatient and show up to clinics/ER for care. Even though families will have cards they carry to give to a provider, this is not foolproof. Patients will appear to be septic and/or need stroke protocol, but CRS/NT needs to be known to consider. Neurotoxicity can appear days/weeks after a patient's discharge.

R: An alert or comment in the banner bar to highlight a patient has received CAR T-cell therapy on a particular date. This recommendation is published in Nature Reviews Pediatric Consensus Statement (Attached PDF p. 5, under "Before CAR T cells Infusion" / bullet point 2.) as well as implied in CJON article "Developing Infrastructure"—"Clinical nurses needed to recognize the urgency of prompt reporting of toxicity-related symptoms".

CHIO COUNCIL DELIBERATION

Discussed live at the 29 October 2018 CHIO Council Session.

VERDICT

HOLD / FURTHER WORK REQUIRED.

Summary of Discussion: We wish to thank the requestor for an exhaustively-written SBAR. Thanks to this SBAR we are aware of the dangers of this particular therapy, and the possible patient harm that can result. Unfortunately, there is no place in the Banner Bar where any customizations can be made anymore so that is out. Our 1.5 year journey has proven out that Open Chart alerts have little to no effect, especially with the volume of Open Chart alerts we had. While we agree that education alone is not likely to solve this issue, we would like to ask for a renewed education campaign while we further investigate this important matter. We are now conversing with Cerner for a recommendation, and will consult with other healthcare systems on best practices.

20180924 SBAR AD-HOC FORMS

SBAR

S: Request Build for: 2 projects

1. Build Ad-Hoc form to enter/report out diabetes data needed for billing purposes. We know exactly what fields we need. Have discussed with Cerner users in Alabama who have similar Ad-Hoc form in use in Cerner.

2. Request Dynamic Documentation

B:

1. The Ad-Hoc form in Cerner would collect critical diabetes data needed for accreditation and billing purposes. This would replace the use of a second documentation in MCCM. IU Health Bloomington Diabetes Center and IU Health Arnett Diabetes Center also could utilize this form.
2. Powerform is going away, our center needs dynamic documentation

A:

1. We can have all requested fields ready for the build, even though pulling data in from labs (a1c, BMI), it is not critical and we are willing to enter the data. The data must be able to pull out into a report.
2. The diabetes educators current use dynamic documentation and dot phrases. Dynamic Documentation should not be a hard transition.

R:

1. Build Ad-Hoc Form in Cerner for Diabetes educators to enter data for accreditation and billing. This data will report out and be used for accreditation purposes and continuous quality improvement. This will eliminate double documentation in MCCM. IU Health Bloomington and IU Health Arnett could also utilize this form.
2. Bring IUHP Diabetes Center up on Dynamic Documentation

CHIO COUNCIL DELIBERATION

Discussed live at the 29 October 2018 CHIO Council Session.

VERDICT

DENIED / WAIT FOR UPLIFT CORE PROJECT.

Summary of Discussion: This Diabetes group is high on the priority list for a 2019 Uplift CORE due to the fact that MCCM will be retiring in June 2019. This request will be included in the Uplift CORE, as this is the appropriate and Model-compliant fashion of dealing with this set of changes. It is worth pointing out that Dr. Park has significant experience with the University of Alabama at Birmingham, as he was faculty there – UAB's Cerner build is extremely custom as well and their PowerForms will categorically not work in our domain. These are engineering projects that need to be done carefully and in an absolutely Model-complaint fashion, as further breakage is not desirable or permissible.

20180926 SBAR MODEL OPIOID MANAGEMENT RULES AND POWERFORMS

SBAR

S: Cerner has published the Model Content for Opioid Management. The first on the roadmap is the Clinical Content as noted:

- This content package contains content for clinicians and providers to proactively monitor and manage the prescribing risks associated to long term opioid therapy by creating a safer closed-loop in managing chronic pain for the adult population in the acute and ambulatory setting.

B: IU Health created a process for management of the Pain Contract and it includes an Open Chart alert. Our goal is to remove Open Chart alerts. The package that Cerner provides the following for the process:

- Standard Clinical Event
- Standard PowerForm
- Initiate Opioid Treatment Agreement
- Discern Rules (JIT at the ordering of opioids)
- NOTE: Does not replace existing patient-facing forms for pain contract—only for the tracking and alerting around the contract

A:

- Cerner Model: Take this content package — WE RECOMMEND THIS APPROACH.
- Alternative: Keep our current custom alerts & process for managing Pain contracts.

R: Take the Cerner standard Opioid Management rules & alerts and PowerForms. This will allow up to continue to take content in this area as released by the Opioid Resource Center at Cerner.

CHIO COUNCIL DELIBERATION

Discussed live at the 29 October 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: As we know all too well, the opioid crisis is one of the largest public health issues facing our country today. The Cerner opioid management package (as written in the SBAR) is indeed the Cerner Model Standard approach. Not only is it the Cerner Model Standard approach, **it is the foundation of all further innovation and advancement in this space**. We therefore must place a high priority in getting this module in, in absolutely Model-compliant and rock-solid form.

20181016 SBAR 310 RT COPD EDUCATION ORDER

SBAR

S: System Respiratory Care needs an RT-specific COPD Education order as a stand-alone and to replace the generic RT Education order currently associated with the new COPD mini orderset.

B: When the COPD mini was being developed, COPD education was incorporated as a standing, pre-checked order. We thought the order was going to be specific to Respiratory Care since the mini is intended as an in-patient PowerPlan. Upon go-live, it was determined that the pre-checked COPD Education order was actually the Pulmonary Rehab order. We had it changed, but the only thing we had available was the generic Respiratory

Education order so a note was attached stating COPD education was what was needed. Resp Care needs to account for the time it takes to complete COPD Education so daily staffing is appropriate based on pending orders/tasks. In order to do this, we need to add our productivity measure (RVUs) to the order so it fires to Staff Assignment and loads to our Orders Pending Report. We do not want (nor would it be appropriate) to add RVUs to the generic Respiratory Education order because many education items do not take as long as COPD education.

A: Respiratory needs a separate COPD Education order to add RVUs to the front end for better daily staffing purposes. The back-end charge (for time/productivity only) is 6 RVUs (which equals 60 minutes) and now that we have a COPD mini PowerPlan for in-patients, we would like to be able to plan ahead for the education in our daily staffing plan.

R: Build an RT-specific, free-standing order with 6 RVUs on the front end. Once built, this order would replace the existing generic RT Education order in the new COPD mini PowerPlan.

CHIO COUNCIL DELIBERATION

Discussed live at the 29 October 2018 CHIO Council Session.

VERDICT

DENIED / REVERT TO MODEL.

Summary of Discussion: We do require a solution to this issue, but this is a road that we deliberately chose not to go down when we reverted to Model in the space of nebulized agents. We will be following up with Cerner to discover where Model is in this space, what best practices are across Cerner clients, and where our Riley team should go next in this journey.

20180815 SBAR SMARTZONE GLOBAL ROLLOUT

SBAR

S: Cerner alerting is intrusive, system resource heavy, and doesn't provide alerting at the appropriate time within the end users workflow. Today, IU Health has 14 Open Chart Alerts that could be removed or allocated to smart zones which will provide information passively and at the end users convenience.

B: The alerts that are presented below are either open chart or system resource heavy. These alerts may also have other more appropriate ways of informing end users without having an alert at the time a chart opens. Cerner has historically limited the number of open chart and "pop-up" alerts and Model Experience does not specify any recommendations around these alerts at this time.

A: Simplifying and minimizing the open chart alerts will contribute to the larger effort of improving system performance and workflow efficiency. It will also lead to a decrease in the number of times an end users workflow is impeded at an inappropriate point. The proposed rule retirements were evaluated against the use of SmartZone and the Rules/Alerts Committee has determined that these are not needed. The proposed SmartZone rules were evaluated based upon the need to ensure end users were aware of the information but did not need it at the time of chart open. The use of SmartZones will be scrutinized in the same manner as all other rules and alerts.

For the past few months, we've been trialing the functionality in a limited capacity for DBAs and Uplift Insiders. We used a series of three rules as part of the pilot to analyze performance and understand fully how these passive alerts work. What we found was that there were no negative performance aspects other than taking the hit as one open chart alert to load the SmartZone window. The multiple alerts within do not hold up the system and users can continue to work as they load. We consider this a successful pilot.

R: We recommend activating Cerner's SmartZone functionality for all users to provide passive alerting as a means to inform the users without stopping workflow. We also propose the conversion of an initial batch of rules to SmartZone to maintain the alerting capabilities while simultaneously reducing drag on system performance (specifically Chart Open resources).

CHIO COUNCIL DELIBERATION

Discussed live at the 29 October 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: We have by this point in time fully approved the SmartZone concept, and have ascertained the following:

1. It is dependent on Cerner cloud services, which has both good and bad consequences: good, in that the resource drain is somewhat less; bad, in that when the Cerner cloud goes down, so too do SmartZone alerts.
2. While these are not Open Chart alerts, they still have the performance characteristics of such.
3. We cannot put in more than a handful of SmartZone alerts; we already may be at capacity.

30 JULY 2018

We continue to churn through the backlog. We are nearly finished at this point, and there is one final tranche of SBARs to go. Thank you for remaining patient during this time.

AN OPEN LETTER ON CHIO COUNCIL APPROVALS AND CERNER MODEL REVERSION

Hoosiers,

In regard to all current and future CHIO Council verdicts:

- All approvals, as you will note, are marked **APPROVED / REVERT TO CERNER MODEL.**
- This has a specific meaning: **reversion to Cerner Model always takes precedence over an enhancement, even if that enhancement is an approved SBAR.**
- Furthermore, most of the SBARs that are approved **cannot be done without a large-scale reversion first to Model in that space.**

In specific, I call out the final verdicts on the Stroke Coordinators and MFM Multi-Patient Task Lists. **Those cannot be complete at this time due to the entirely custom state of MPTLs across the enterprise (and more importantly the foundations underneath our MPTL build)**. They will be placed on the roadmap once Model reversion in this area is complete. Similarly, our reversion to Model in patient height/weight/head circumference **will require a resource-intensive reversion to Model build**.

This is a natural consequence of our having been a very custom Cerner build for a very long time. We are now near the bottom of our foundations, and the true pain of the Cerner Model reversion is **now**. We expect to have long wait times for any new enhancements for that reason. I have often said that around this time, we will find ourselves in the hardest part of our plan to become the best build of Cerner that exists – and it turns out that this is entirely true.

Please bear with me during this time, and join me in the work of continuing to repair our foundations first. **It is always darkest before dawn. Dare to believe with me that we walk now in morning twilight.**

Sincerely yours,

Seung Park, MD
Senior Vice President and Chief Health Information Officer
Indiana University Health
734-255-2411
spark4@iuhealth.org

20180625 SBARS UNION TRANSCRIBED LABS ADHOC FORM

SBAR 1: EJECTION FRACTION

S: Since going live with Cerner 4/24/2017 our cardiac imaging is not interfaced to allow discrete data elements to be easily review or extracted. For example: if an echo is done it will show in results review on date of service. You then can open report from here to show discrete data (i.e. ejection fraction).

B: The Population Health Team need a way to track palliative care referrals based on ejection fraction (EF) of less than 20%.

A: Currently here is no easy way to pull EF < 20% to see who also received a palliative care referral.

R: UMG is requesting Ejection Fraction field be added to Transcribed Lab Ad Hoc form for tracking and reporting purposes

SBAR 2: MAMMOGRAM CATEGORY

S: Since going live with Cerner 4/24/2017 there is limited interfaces allowing discrete date elements to be easily reviewed or extracted. For example: there is no place or flowsheet to show a mammogram category. One would have to find the mammogram report to find this data.

B: Clay City Rural Health received a grant to monitor breast cancer screenings. Any abnormal screenings need to be identified. We will use mammogram Category 0 too indicate additional testing or more images are needed. Category 3, 4, 5 all indicate abnormal. It's also assessed if referral is done 60 days after abnormal mammogram identified.

A: Currently there is no easy way to pull mammogram categories for Clay City Rural Health providers to meet grant requirements.

R: Requesting Mammogram Category field be place under Transcribed Labs in Ad Hoc. This will have to manually be entered but our data analytics specialists can run reports form these fields.

SBAR 3: QUANTIFERON TB GOLD

S: Since going live with HealtheRegistries we have to manually migrate the QuantifFERON TB Gold values in order to meet the RA TB Screening. There is not place in on the Transcribed Labs Ad Hoc forms to manually enter this information. We need TB Gold to be able to migrate this data to meet this measure.

B: Need to be able to migrate QuantifFERON TB Gold into Cerner for Union Health.

A: Currently there is no way to migrate QuantifFERON TB Gold for Union Health.

R: UMG is requesting QuantifFERON TB Gold on the Transcribed Labs Ad Hoc form in order to meet the Diabetes measures in HealtheRegistries.

CHIO COUNCIL DELIBERATION

Discussed live at the 30 July 2018 CHIO Council Session.

VERDICT

DENIED / FURTHER WORK REQUIRED.

Summary of Discussion: While we reluctantly approved the Fasting Glucose SBAR, we still maintain that it would be far better to take the engineering man-hours that we put into that workaround into the more permanent solution

(which would be the LabCorp RLN interface) instead. We have a limited number of engineering man-hours and the more of these we pull for one-off workarounds the less we have to go around. In the case of two of the three SBARs, **these are not labs** to begin with. These are discrete data elements generated in Fuji Synapse that do not transport over as discrete data elements to Cerner Millennium.

This is a reflection of the lack of integration between our PACS and our enterprise EMR. This is also an intolerable situation; **the primary customer of any clinical system, PACS being the example here, is as much those providers affected by it as those providers who are direct end users**. Kiray notes that this is a systemic issue, and not limited to Union – that is to say, Union is simply uncovering and bringing to light an issue that has existed all along.

If we are to continue to tread the path of a non-integrated PACS, then that PACS must at a bare minimum do appropriate discrete data element transfer back into the EMR. **Hennon is assigned to lead the exploration in the Radiology space (SBAR 1-2); Simpson in the Lab space (SBAR 3)**. We encourage the requestor to think of this not so much as a denial, but as an effort to do the right thing with the limited pool of engineering resources we have.

20180628 SBAR CONTRACTION ONSET & ROM REDUNDANT DTAS

SBAR

S: Currently in the OB Initial Assessment Form there are fields for both onset of contractions and rupture of membranes. When these fields are charted they do not populate to the IFlow sheet.

B: End users identified when admitting a patient that it was necessary to chart contraction onset and rupture of membranes in the IFlow section even if it had been charted in the OB Initial Admission form. This workflow issue was brought to OB EMR for review.

A: PowerChart Maternity team looked at current state and found that these fields each had two different DTAs. This means the nurse enters this information when the patient comes to triage and then if patient is admitted the nurse caring for her as an inpatient must enter the information again on the IFlow sheet.

R: The recommendation that came from the OB EMR group was to remove the DTA associated with contraction onset (contraction onset date/time) and rupture of membranes(membrane rupture date and time) on the OB Initial Admission form and add the DTAs from the IFlow (contractions onset date and time and ROM date/time). When this is done the information entered on the OB Initial Assessment Form will automatically populate on the IFlow. The Power chart maternity team verified that this was model standard. This change will benefit the end user by eliminating duplicate charting, along with removing two DTAs.

CHIO COUNCIL DELIBERATION

Discussed live at the 30 July 2018 CHIO Council Session.

VERDICT

REVERT TO CERNER MODEL.

Summary of Discussion: This is an artifact of our history that has come to haunt us, as many of these artifacts do. We did not become the slowest install of Cerner in the world by mistake; we did not create nursing initial

assessments that had 10x the national average of required data elements because someone else told us to implement things this way. No, the blame belongs to us.

In this case the matter is philosophically straightforward: we need singular fields. Let us proceed down the Model path, and cut the duplication out of our system.

20180713 SBAR IUHP CERTIFIED MA TEAM BASED CARE POSITION CHANGE

SBAR

S: As we move towards Team Based Care in Primary Care at IUHP we have expanded the role of the CMA, one of the changes is that the CMA remains in the room with the provider as they see the patient and assists with documentation, ordering and completion of the visit.

B: We were informed that this was already being done at Jay County and had requested that the CMA be moved to this same position to be able to document. This model is being used across the country in Primary Care. When submitting the request realized that important current state Cerner workflow components would be lost for the CMA by going to this position.

A: The current OE: AMB RN LPN CMA w/Auth position is missing key mPages (quick orders, charges, future order, etc) that the clinical staff needs to accommodate their existing workflow.

R: Please allow for the Clinical Support Viewpoint to be added to the TOC of the OE: AMB RN LPN CMA w/Auth for the clinical staff. This will allow for the clinical staff to have access to both mPages and not be disruptive to Jay County's workflow.

CHIO COUNCIL DELIBERATION

Discussed live at the 30 July 2018 CHIO Council Session.

VERDICT

DENIED / FURTHER WORK REQUIRED.

Summary of Discussion: First, we thank the requestor for bringing this matter to our attention. This is a space that we have long been watching – indeed, the initial pilots at IU Health Jay Hospital were done under our auspices. At the time, there were several issues that stopped us from proceeding with IUHP:

- An explicit IUHP policy that forbade MAs from serving in scribing roles
- The lack of uniformity in clinical and support staff process, making a singular position build impossible
- The desire at the time from IUHP leadership to take a "watch and wait" approach

From this SBAR, we surmise that the last of those bullet points is no longer valid, and there appears to be active desire from the part of IUHP to tread this path. Kiray points out that the policy may still be in effect, and that if so this would need to be changed before any further discussion could take place. Ivory rightfully notes that this is as much a nursing and support staff issue as it is a provider issue, and that there needs to be nursing representation

at the table. Schaffer correctly discusses the incongruity in system design in treading the exact path requested by the requestor.

As such, it is the recommendation of this Council to tread the following path:

- Consult with Cerner and Cerner-deploying IDNs to learn best practices and Model recommendations in this space
- Once done, set up a statewide meeting – perhaps under the auspices of the Clinical Councils – to come to a single consensus on this position and its functionality
    - **Kiray to be CC leader, physician**
    - **Ivory to be CC leader, nursing**
- On the IUHP side, ensure that policies do align with this ask; as of the Jay go-live they did not

20180726 SBAR REQUEST/ACCEPT SUMMARY OF CARE POWERFORM EXCLUSION

SBAR

S: Request/Accept Summary of Care is an objective that is measured for Promoting Interoperability Stage 3. This falls into one of the 5 base Objectives called Health Information Exchange. There may be times when a patient needs to be excluded from this measure due to not receiving a Summary of Care from the referring provider.

B: Although IUH is part of the Next Gen ACO, we still need to meet 2015 CEHRT criteria and have all functionality to meet Promoting Interoperability measures. Also, there are provider who will need to attest for PI as Medicaid or under MIPS (Merit-based Incentive Payment System).

A: Currently, there is not anyway to capture this exclusion within Cerner. The recommended process of capturing this exclusion is the use of a PowerForm. The process is outlined in a PDF sent along with this SBAR. This PowerForm has been identified as a gap within Model and will be included in a new Model release at some point.

R: Since this PowerForm is part of a PI measure and a current identified gap in Model, the recommendation is to build, train, and implement the Request/Accept Summary of Care PowerForm. Full approval of the CHIO Council is requested so the decision is not made by a small team.

CHIO COUNCIL DELIBERATION

Discussed live at the 30 July 2018 CHIO Council Session.

VERDICT

REVERT TO CERNER MODEL.

Summary of Discussion: This is a very interesting matter, as it is an instance of a workflow and a PowerForm being included in a **future** revision of the Cerner Model Experience that is not included in the **present** revision. As we perform our Cerner Model Standard reversion, there are now places where we are beginning to either pull ahead of the Model Experience, or live on its leading edge. As such, our philosophical path forward is clear.

The technical path forward is what is in question. We need to partner very tightly with Cerner in this space to make sure that we are actually implementing what future-state Model will be. Let us proceed forward in that spirit.

20180730 SBAR CERNER PROVIDER PORTAL VS. IHIE

SBAR

S: Skilled nursing facilities and long-term care facilities note extreme dissatisfaction with our ability to provide accurate and up-to-date information on the patient on discharge. This has led to dangerous delays and gaps in care.

B: Due to culture and to our reliance on transcription, we generally have a 3-4 day delay between patient discharge and finalization of the Discharge Summary. Furthermore, we operate in an environment in which St. Vincent and Community Health Network provide (free-of-charge) an Epic provider portal to LTACs and SNFs. Finally, LTACs and SNFs are unwilling to pay the cost for an IHIE or a CommonWell implementation, especially in light of the fact that our competitors are providing functionality free-of-cost.

A: There are two different issues, one of which is a cultural issue and the other of which is a decision for the CHIO Council. The cultural issue is that of the 3-4 day delay between discharge and finalization of the Discharge Summary, and we hope that the implementation of the Cerner Standard Discharge Process this year will help. The CHIO Council decision, on the other hand, is whether we go with the Cerner Provider Portal or we continue to go down the IHIE path. We have the funding to emergently implement the Cerner Provider Portal, and if we were to continue to go down the IHIE path this would involve paying for IHIE portal licenses on a per-facility basis.

R: We recommend that we implement the Cerner Provider Portal in this space.

CHIO COUNCIL DELIBERATION

Discussed live at the 30 July 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: The requestor is absolutely right to point out that of the two issues, only one can be deliberated on by the CHIO Council. In this our path is clear: it is untenable to offer to pay for individual IHIE licenses, even if that were the cheaper path in the short run. Furthermore, given the fact that the Cerner Standard Discharge Process remains on-track for its systemwide deployment in 2018Q4, we believe this is the right time for us to be treading this path. **As such, we are pleased to support the implementation of the Cerner Provider Portal, in an absolutely Cerner Model Standard compliant fashion.**

24 JULY 2018

Please note that due to illnesses, we had to adjudicate two months' worth of SBARs at once. Today is a continuation of a report out on CHIO Council verdicts.

20180326 SBAR MFM 310 (REVISITED / FINAL VERDICT)

SBAR

S: Maternal Fetal Medicine referrals require a nurse review to determine best appointment time and coordination based on mother and baby needs along with the baby's gestational age. Our current process is: the internal referral orders in Cerner are routed to the individual clinics and the nurse reviewing the referrals is not located at the clinics. The referring internal provider is required to print out clinical documentation out of Cerner and fax the referral form.

B: The process is legacy from before the department went on Cerner and had a formal nurse referral review.

A: It is a waste of resources to require the internal referring provider to print and fax referrals and clinical notes. The orders are routed to clinics. We have a best practice which works well for Primary Care. Their referrals are routed to a referral service task list to work and set up an appointment to IUHP specialties. This task list is called ANT Multi-Patient Task List.

R: We would like a MFM patient referral task list. Also, we would like the MFM referral internal from Cerner route to this task list so our referral nurse can review them. This will eliminate the paper process and streamline the Cerner electronic process allowing a nurse to easily pull and review the referral to determine appropriate scheduling.

CHIO COUNCIL INVESTIGATION

Webber performed the investigation as assigned by the CHIO Council. Her findings are below:

1. **Current State Workflow:**
    a. We reviewed that the MFM service line receives faxes for their referrals, even though the majority of the referrals are from internal IU Health clinics. The service line receives approximately 10-12 referrals/day. The MFM nurse navigator then does a manual sorting of the faxes and schedules the appointment manually, followed by scanning the original referral request into Cerner.
    b. The biggest barrier to sustaining this workflow is the amount of the repetitive and redundant work that the nurse navigator faces. This workflow makes it very challenging for the nurse navigator to triage the referrals.
    c. Because of the nature of prenatal care, inefficient scheduling and triage can lead to missed opportunities for tests, interventions or counselling.
2. **Future State Workflow:** The MFM IUHP clinic is well positioned to utilize the task list for scheduling. Their proposal is not to simply adopt the Primary care model, but instead:
    a. Have the task list reflect all MFM referrals (order already exists)

b. Allow the RN navigator for MFM to be the point of contact to manage such a list, which would aid in triage as well as finding the correct location (1 of 4, depending on clinical need).

3. **Review of Model:** A task list is the correct model fit currently; both to meet immediate clinical need as well as in preparation for an eventual transition to any future state referral management tool. Celeste knows that work in depth, as it's a huge part of IUHP's work.
4. **Final Recommendation:** Approve a Task List as written.

FINAL VERDICT

APPROVED / REVERT TO MODEL.

Commentary by Park: This was an excellent investigation, and we are pleased to close the book on this long-running SBAR. Webber is to be commended for her excellent and comprehensive investigation. As we build these out, we must remember to be absolutely Cerner Model Standard compliant for the future. The state we are approving is still not a full Cerner Model aligned state, and will change in the future (especially as we go forward with Cerner Referral Management, as noted by Celeste's commentary above). We must be vigilant and we must remember to always be doing prospective evaluations of present and future Model in this space and others.

20180518 SBAR MIDLINE CATHETER DOCUMENTATION IN M-25 (REVISITED / FINAL VERDICT)

SBAR

S: Surginet Anesthesia and the M-25 do not have an option to chart Midline catheters. Only available places to chart them are under PIV or central line. A midline is similar to a PIV and, significantly, **is not a central line**. There are some care and maintenance differences between these and PIV or CL as well as differences in what can be infused via the midline. Therefore it is pertinent that these are identified and charted separately to prevent errors and to depict accurate data in reporting.

B: The organization is seeing more patients coming in from outside hospitals with midline catheters in place and our VAT teams are routinely placing these catheter types. Continuation of the documentation for care is needed in the perioperative space to support accuracy and prevent potential IV medication delivery errors. Dr. Calkins reviewed and approved the content as well as all Anesthesia champions across the state.

A: A midline catheter is defined as a short term peripheral catheter (up to 29 days) for access to the venous system for selected intravenous therapy and blood sampling. This peripheral access does not extend into the central venous system. Insertion of midlines are by the RNs trained on the Vascular Access Team. Anesthesia and Intraop nursing do not have a place to document midlines and so they are being documented as PIVs or Central Lines which can lead to infusion errors, i.e. medications that should only be given centrally are given via a midline.

R: Add an action item within Surginet Anesthesia and add a Midline option within the M-25 to document.

CHIO COUNCIL INVESTIGATION

- The requested solution is within the bounds of Model, but may or may not be truly Model-compliant depending on how it is built.

- This ask synchronizes well with the ongoing Nursing Uplift and its focus on line documentation.
- We are well aware of (and very wary of) customizations for which we pay a heavy maintenance cost later.
- It is incumbent upon us to make sure that we are fully adhering to Model.
- While much work has been done by Cerner to clean up Model Experience guides and wikis, these resources are still difficult to navigate and the source of truth can still be hard to get at.
- The right question to ask of Cerner is often "and what is Cerner's opinion in this matter if Model does not yet exist?" The problem with this question, however, is that we have to be sure that we have Cerner's – the entire corporation's – opinion, not the opinion of a single Cerner employee.
    - There are some known prior design decisions that we historically made on the say-so of a single Cerner employee, who had made a best guess (and Model did not exist at the time) that unfortunately did not turn out to be indicative of the direction of Cerner even at the time. We bring this up not to raise blame, but to raise awareness of the fact that **just because someone comes from Cerner does not necessarily make that person a representative of Cerner Model Standard**.
- As stated on other SBARs adjudicated during the July 2018 CHIO Council Session, the stars appear to be aligning in a way that is rare even at a large institution like IU Health. We would do well to take advantage of this conflux of intensive EMR projects while it lasts.

FINAL VERDICT

APPROVED / FURTHER EXPLORE CERNER MODEL / HANDOFF TO NURSING UPLIFT.

Commentary by Park: This SBAR sparked a massive, months-long investigation into the status of line documentation at Cerner, and comparisons of what we have vis-à-vis the Cerner Model Standard. It is interesting to note, too, how much the stars have aligned – we are in the full swing of a Nursing Uplift, and line documentation is a key focus of that project.

After much exploration and deliberation, we have decided to **APPROVE** the change, but under the strict guidance of Cerner Model Experience resources to make sure that our design and build is exactly congruent with future Cerner Model Standard in this space. Furthermore, Lovely is deputized to perform a warm handoff of this issue to the ongoing Nursing Uplift.

As we wrote in the **20180614 SBAR Gift of Love vs. Adoption Plan** verdict below, the general strategy for this class of requests is as follows:

- Follow up with the Cerner Model Experience, IP, and Strategists team to inquire what Model is in this domain, if it exists at all.
- If Model does exist, chart a definitive path toward adoption of Model at IU Health.
- If Model does not exist (or is deficient), open conversations with Cerner Model Experience and IP as to how we might inform Model.

Let us move forward in that spirit.

20180614 SBAR GIFT OF LOVE VS. ADOPTION PLAN

SBAR

S: We currently have a PowerForm entitled "Gift of Love". It is not specific to Gift of Love, and is indeed a general adoption plan form that is applicable to many facilities and many adoption organizations. In current state, the name is not easily recognizeable to the end user and as such is often overlooked in the adoption process when charting.

B: This form has historically only been associated with the adoption program at Methodist Hospital, and has not been used elsewhere. The IU Health Clinical IS PowerChart Maternity Team brought this matter forward to the OB Clinical Council and the recommendation was to change the name of the form from "Gift of Love" to "Adoption Plan".

A: This form is not within Cerner Model Standard, but it provides valuable information to the nurse as to how to care for the patient.

R: Change the name of the PowerForm from "Gift of Love" to "Adoption Plan"**.**

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED / FURTHER EXPLORE CERNER MODEL / HANDOFF TO NURSING UPLIFT.

Commentary by Park: This is a very interesting SBAR for a number of reasons. First, there was a large amount of debate amongst the teams as to whether this was a standard change or a change worthy of an SBAR. This verdict is to confirm that this is a change worthy of an SBAR. A change like this will require re-education – although in this case we agree with the requestor that the proposed new name is consistent with better systematic design than the original name.

As such, we **APPROVE** the name change as a temporizing measure, and further deputize Lovely to lead the charge in educating out. However, we need to take this as an opportunity to do the following:

- Follow up with the Cerner Model Experience, IP, and Strategists team to inquire what Model is in this domain, if it exists at all.
- If Model does exist, chart a definitive path toward adoption of Model at IU Health.
- If Model does not exist (or is deficient), open conversations with Cerner Model Experience and IP as to how we might inform Model.

Ivory and Lovely are deputized to lead the above charge, alongside the PowerChart Maternity team. We hereby make this one of the considerations of the Nursing Uplift that is currently in-flight. We would like to thank the requestor for having the discretion to inquire as to whether this is appropriate as an SBAR or not, as well as for the patience displayed in this deliberation.

20180711 SBAR MICROBIOLOGY RESULTS IN PORTAL

SBAR

S: Results for clinical results currently post to the MyIUHealth patient portal. Cerner Model has now released additional microbiology content (Bacteriology, Mycology, Mycobacteriology, Parasitology, and Virology) for general availability in the portal.

B: My IU Health Patient portal currently posts results 36-hours after they are posted to the clinical EMR. In particular, some pulmonary patients have requested microbiology results be viewed.

A: Microbiology would add value to patients and facilitate shared decision making for patients and medical teams by being available in the portal.

As of June 2018, there are 331,887 patient enrolled with a portal, and 74.7% of those patients use the health services page that shared clinical results. Of those using the page, 30% of the time the patient is accessing lab results in the portal.

R: We recommend that microbiology results be made viewable in the My IU Health patient portal with the standard 36 hour delay in posting.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Commentary by Park: This is a straightforward matter. This is a welcome and patient-centric enhancement to both the EMR and to the Patient Portal, and we strongly support it. **Let us also use this time to reflect on the current state of our Portal, and take what steps are required to bring ourselves into a fuller alignment with Cerner Model**. This approval, in that respect, is a signal from the CHIO Council that we consider this a building block in a future Model-compliant state, rather than a one-off.

20180711 SBAR SEXUAL ORIENTATION AND GENDER IDENTITY (2015 CEHRT)

SBAR

S: As part of 2015 CEHRT (Certified Electronic Health Record Technology) criteria, Sexual Orientation and Gender Identity & Birth Sex (Sex identified on Birth Certificate) vs. Admin Sex (Patient's selected sex, Legal Sex identity) questions are being added to Cerner. This documentation will be included in Registration Conversations and Social History. All documentation is part of Cerner Model.

B: 2015 CEHRT requirements must be in place by January 1, 2019. The CEHRT recommended verbiage has been reviewed by appropriate groups within IUH and approved. The group that reviewed the workflow and verbiage was called Gender Identity Workgroup – Dr. Cavaghan was part of this group. The workflow was also reviewed by Cerner and is the preferred workflow.

ONC (Office of National Coordinator) Criteria:

> *Technical outcome – A user can record a patient's sex according to HL7 Version 3 and a null Flavor value attributed as male (M), female (F), and unknown (UNK).*
>
> ***Clarifications:***
>
> *The codes required are intended to present birth sex (i.e., the sex recorded on the patient's birth certificate) and not gender identity or reassigned sex. This criterion requires health IT enable a user to capture sexual orientation and gender identity separately.*
>
> *Technical outcome – A user can record a patient's sexual orientation and gender identity according to HL7 Version 3 and SNOMED CT® codes specified in the "standard(s)referenced" column. The user must be able to record whether the patient declined to specify sexual orientation and/or gender identity.*
>
> *https://www.healthit.gov/sites/default/files/2015Ed_CCG_a5-Demographics.pdf*

A: In preparation for these new fields, education beyond the usual Clinical IS FAQ is needed. Registration staff will be involved in collecting the Admin Sex, while clinicians (after talking with the patient) will be involved in documenting Birth Sex, Sexual Orientation, and Gender Identity.

R: It is being requested that all IUH facilities provide Web based training regarding these crucial conversations that may need to occur during admission or clinic visits. The goal is to have these CEHRT required fields in Cerner by October 1, 2018 therefore any education would need to be completed by then.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Commentary by Park: While the requestor did not ask for CHIO Council approval for this change, approval is nonetheless given – it is an absolute necessity for multiple reasons, not the least of which is respect for our patients. The requestor has the right of this – it is a much more pervasive and a much more meaningful change than most of the changes made in our EMR. As such, this requires a full education campaign that needs to be mandated systemwide. Ivory and Lovely are deputized to spearhead this incredibly important effort.

23 JULY 2018

Please note that due to illnesses, we had to adjudicate two months' worth of SBARs at once. We are therefore publishing as much as we can today, and will publish more over the course of this week.

20180523 SBAR STROKE COORDINATORS MULTI-PATIENT TASK LIST

SBAR

S: Currently there is an order for CNS/APN consult on the Ischemic Stroke/TIA power plan. A CNS does not perform stroke consults. Most hospitals have a designated stroke specialist/coordinator that should be notified upon admission for a stroke patient. In certified stroke programs, stroke coordinators play a vital role in ensuring quality indicators have been met. Currently these specialists utilize workarounds and various maneuvers to locate stroke patients.

B: The stroke coordinators updated the order sets for approval by the Neurology Clinical Council. The "CNS/APN Consult for "Stroke Admission" has been changed to "Stroke Coordinator List". Removing the CNS consult was approved by the Neurology Clinical Council. Stroke coordinators must be notified in a timely manner. Creating a Stroke Coordinator List as a Multipatient Task List was requested by Neurology Clinical Council to assist with this.

A: A Stroke Coordinators' Multipatient Task List that is populated by the Stroke Consult order is needed and was approved by Neurology Clinical Council.

R: Since it has been approved by the Neurology Clinical Council, it has been recommended to build a Multipatient Task List for stroke coordinators.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: It is actually within Cerner Model to have such a Multi-Patient Task List for Stroke Coordinators. We will therefore proceed to build such a list out in an absolutely Cerner Model Standard compliant matter.

20180523 SBAR VIEWING HLA REPORTS

SBAR

S: The BMT Coordinators cannot directly retrieve HLA Results for BMT Recipients and their related donors from Cerner.

B: The BMT Coordinators cannot directly retrieve HLA Results for BMT Recipients and their related donors from Cerner. They, instead, must wait for e-mails with scanned documents from the IU HLA Lab to receive results. The IU HLA would like to stop scanning and asked suggested our BMT Coord's could retrieve the report from Chart XR.

A: The BMT Coord's can access a version of the HLA report in Cerner but it does not display correctly. An incomplete version of the report can only be visualized by right-clicking on the HLA report 'box' in Results, and emailing it to themselves. Then the report can be opened, but it is not a complete and correct view.

R:

1. Allow access for our BMT Coordinators, and admin assistant, access to Chart XR

   OR

2. Fix the view of the report that can be accessed from the "results" tab in Cerner

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: It is within Cerner Model to have the full version of the HLA Report in Cerner Results. This is what we will do.

20180524 SBAR CPT4 CODED VS. FREE TEXT PROCEDURES

SBAR

S: Clinicians may enter a procedure in the "old" TOC view and also on the Workflow component. Currently, IU Health allows for free text entry of procedures.

B: This has led to procedures that do not have corresponding CPT codes being entered as free text. These free text procedures are also displayed to patients via the Patient Portal.

A: Cerner Model is to not have free text entry of procedures. It is instead recommended to have the source vocabularies to be CPT4. This Model setting is also consistent with the settings for Histories and the Problem List, and will allow for alignment with future Portal updates via Clipboard.

R: Revert to the Cerner Model Standard to promote procedure to be entered with appropriate CPT4 code moving forward. Communication regarding this change will include:

- Procedures entered as free text in the past are still visible, and best practice to convert to a CPT codified entry
- This feature is not required, but is recommended.

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: It is an extraordinarily important thing to revert to Cerner Model Standard in this space. This design change, however, will have large-scale implications on our clinical enterprise. This is a major change, and we will have to carefully prepare for and educate out on this change. Webber is deputized to lead the charge in this regard.

20180529 SBAR PEDS PULMONARY SLEEP LAB REQUISITION

SBAR

S: There is confusion related to who is to be providing Riley pediatric sleep study results to parents. There is also confusion as to how patients are to be managed following completion of a significantly abnormal sleep study.

B: There is currently one sleep study requisition availability in Cerner for all of the IU Health sleep labs. This requisition is to be used for all adult and pediatric sleep studies: Outside Sleep Study.

A: This requisition does not appropriately communicate who is responsible for providing sleep study results to a parent nor does it provide guidance on how the ordering provider would like their patient managed in the event of a significantly abnormal sleep study.

R: Add the below to the current requisition:

> ***The ordering provider is responsible for communication of the study results to the patient and patient management decisions*** *(significantly abnormal studies will be stamped URGENT)**.***
>
> **** Fax # for results to be sent: _____***
>
> **** Contact # for significantly abnormal studies (requires intervention urgently)*** *(SpO_2 < 90% for 20 min; $ETCO_2$ > 65 Torr or AHI > 30)**: _____***
>
> **** Authorization for management of patients with significantly abnormal studies by the pediatric sleep specialist and/or Riley ENT: _____***
>
> **: If no phone # is included nor authorization signed and we are not able to reach you or your covering provider, patient will be sent to the Emergency Department.*

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

DENIED / REVERT TO CERNER MODEL.

Summary of Discussion: This SBAR created far more questions than answers, and we heartily thank the author of this SBAR for having brought a topic filled with such controversy and such opportunity for improvement before us. We are the only Cerner-deploying organization in the world that has such a thing as an Outside Orderables catalog. These Outside Orderables **are not true Cerner orders**, and indeed are not a construct that Cerner supports at all. These are fully custom to Indiana University Health. **It is a high system priority for us to remove all Outside Orderables as soon as we can**.

We also know that in the space of sleep studies, our orderables catalog and our documentation are not in alignment with Cerner Model Standard. It is critical that we drive to a Cerner Model state in this space – not in small part due to some of the deficiencies brought up by the requestor. We encourage the requestor to not think of this as a denial, in that respect – more as (a) an acknowledgement of the problem and (b) a pledge to drive us to a solution congruent with the best principles of Cerner Model Standard. Webber and Schaffer are deputized to jointly lead an investigation in this space.

20180606 SBAR PERSON CONTACTS AND RELATIONSHIP ENHANCEMENT

SBAR

S: The Person Contacts and Relationships custom MPage component contained within the Patient Information TOC Summary MPage is used to quickly access patient contact information. Currently, this component does not display the results in a specified order. This can and/or may be causing confusion when looking at this component as the order of the type of contacts can be different from patient to patient. This could potentially result in a HIPAA violation in the event that the wrong patient contact is contacted due to the order in which this component displays the results.

B: In late January 2018, the custom MPage component Person Contacts and Relationships was implemented in PROD as an alternative to the Model component Patient Relationships, which was rendered defective during an upgrade. At the time, our understanding was that Cerner was planning to replace the Patient Information TOC MPage with the Demographics TOC MPage (which we have since learned may not be accurate). Due to these factors the decision was made to create the Person Contacts and Relationships custom MPage component in order to provide this functionality, as quick access to patient contact information is valuable in the inpatient/emergency setting. Since implementation, there have been two incidents reported where the wrong patient contact was contacted due to the lack of prioritized results within this custom component.

A: Example of this issue: a patient is initially registered on admission with co-legal guardians. During the initial registration, no other designation is assigned to either of the co-legal guardians. During a subsequent registration, the patient designates one of the co-legal guardians as the Primary Guarantor, Next-of-Kin, and Emergency contact with the intention that this patient contact be the first/primary contact, and the secondary contact only be contacted in the event that the primary contact is unable to be reached. In the chart, the Person Contacts and Relationships component randomly displays the patient's primary co-legal guardian below the secondary co-legal guardian due to the lack of prioritized results. The patient is admitted to the ER at a later date and during the encounter a critical care decision needs to be made by the legal guardian. The Physician uses the Patient Information MPage/Person Contacts and Relationships component to access the patient's contact information and

calls the secondary co-legal guardian because he/she is listed first in the component and is designated as a family member and legal guardian.

Another example: a patient is born at an IU facility. The biological mother is registered as the contact for this patient. The patient is adopted and at a later date is registered to the system with the adopted mother designated as the Legal Guardian, Primary Guarantor, Next-of-Kin, and Emergency contact. Despite this, the biological mother randomly displays first within the Person Contacts and Relationships component. This results in the biological mother being contacted to make medical decisions for the patient (who is still a minor).

R: The Cerner Model component Patient Relationships, while serviceable, is currently defective. The custom Person Contacts and Relationships component provides the needed functionality and can be optimized by updating the CCL to prioritize patient contacts based on their designation. Although we could potentially revert to the Model component in Patient Information TOC MPage if it is fixed, the custom Person Contacts and Relationships component will still likely need to be used elsewhere in PowerChart. Given this information, and considering the relative ease of this change and perceived minimal impact at the Global level, it is recommended that the CCL for this component be updated to assign prioritization to the designations given to patient contacts during registration and organized within the component according to this prioritization.

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

FURTHER INVESTIGATE CERNER MODEL.

Summary of Discussion: This is a highly incongruous matter. In the first place, we cannot continue down the line of creating and maintaining custom components where standard ones are available. In the second, it makes little sense that the display of contacts on the Cerner Model Standard component would truly be random. This is not the way that the sorted list programming construct used in Cerner's backend work – and this suggests to us that there may well be something custom about the way that we created those contacts in the first place.

There is another possibility here: if we are truly looking at the current state of the art in Cerner, then it is incumbent upon us to drive a full and frank discussion with Cerner regarding why this might be. It does not serve IU Health and Cerner, after all, to have a list of contacts that does not sort in any coherent fashion. It also does not serve IU Health and Cerner to have situations where a birth mother is contacted when she should not be.

As such, Park will lead a full investigation in this space.

20180608 SBAR HEIGHT/WEIGHT/BMI/HEAD CIRCUMFERENCE AND GROWTH CHARTS

SBAR

S: Currently in Cerner, calculated values of percentile and z-score for Height, Weight, BMI, and Head Circumference do not store discretely. These values are viewable from the Growth Chart, but do not write back to Results Review.

B: This gap means that percentiles and z-scores cannot be trended or incorporated into clinical documentation for diagnoses like malnutrition or failure to thrive. Clinicians do not have a way to pull that data into their documentation via a vital signs script, and are manually entering the data, which is both inefficient and a source for error, as well as a gap in basic pediatric EMR functionality.[1] Growth chart data is an essential part of a physical exam in pediatrics, and our pediatric clinicians have been requesting this functionality since they went live on Cerner.

A: Cerner has provided the following functionality in the 2015.01.26 codebase, which we are now on. It was not available in Model previously. The work effort is for IS, and does not require change to clinician workflow. Discern rules that cover the calculations are automatically installed, and growth charts can then store the calculated values of percentile and z-score for Height, Weight, BMI, and Head Circumference events in the CLINICAL_EVENT tables.

R:

1. Create the following event sets in Core Event Manager (CoreEventManager.exe): BMI z-score, Height/Length Percentile, Height/Length z-score, Weight Percentile, Weight z-score, Head Circumference Percentile and Head Circumference z-score.
2. Add clinical events into current Vitals scripts to allow for this data to automatically pull into documentation.

FOOTNOTES

[1] Lehmann CU *et al*. "Pediatric aspects of inpatient health information technology systems". *Pediatrics* 2015 Mar;135(3):e756-68. doi:10.1542/peds.2014-4148.

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: This is indeed a Cerner Model Standard change. As such, we are happy to approve it. When it is being built, this must be built in a 100% Cerner Model Standard compliant technical fashion.

20180612 SBAR CHRONIC OPIOID WITHDRAWAL SCALE (COWS)

SBAR

S: IUH requires a consistent Inpatient medical and behavioral health assessment tool addressing opiate withdrawal symptoms to incorporate PRN treatment with medication.

B: The system Opiate Withdrawal Team has been working under the mandate from the IUH Risk Management office to address Opioid topics and order set applications in the clinical setting. Opiate dependency has been identified by this office as one of the largest contributor to both patient and staff harm. In addition, most nursing staff and many providers have minimal education or knowledge of appropriate opiate withdrawal protocols or

symptoms resulting in both patient harm, staff harm and frustration. The COWS is the validated and national standard tool supporting this need.

A:

- An order set developed to support appropriate dosing guidelines must be accompanied with an associated evidence-based assessment scale noting the extent of withdrawal.
- Currently the Chronic Opioid Withdrawal Scale (COWS©) assessment tool is available on the IUH I-flowsheet, based on a past customized build, but ONLY for the OB patient population.
- Cerner Model does include the COWS tool as a Form and I-flowsheet section for the Behavioral Health patient population and associated nursing position.
- Cerner Model does not include the COWS tool for the general inpatient nursing positions such as Med-Surg and/or ICU because they do not assume the organization is purchasing the Behavioral Health Cerner Solution. Since IUH has purchased the Behavioral Health Cerner Solution this MODEL content is available for our use (per Malia Welhaven).
- There are some inpatient units across the system using OWA tool and have it customized within their I-flowsheet view.

R: The system Opiate Withdrawal Team recommends the retirement of the OWA tool and the implementation of the Cerner Model COWS tool for all care locations (medical and behavioral care). This request for I-flowsheet programming is in collaboration with associated opiate withdrawal order sets recently approved by the Combined Order Set and Protocol Oversight Group (COPOG).

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: The COWS tool is indeed the Cerner Model Standard approved path forward. However, as the requestor points out, the Cerner Behavioral Health module is just now in the initial implementation stages. This reminds us of another worthy endeavor that is happening in our ecosystem right now: we have at least one large physician group that wishes to go down the path of a Dynamic Documentation Discharge Summary before the Cerner Model Discharge Process goes live. Just as we messaged to that group, this Council recommends that the requestor join the Cerner Behavioral Health efforts, as it brings multiple enhancements (such as COWS) that have broad applicability outside of behavioral health *per se*.

Furthermore, this tool has impact as much on nursing and pharmacy practice as it does on physician practice. **We are at a unique crossroads where the Nursing and Pharmacy Uplifts are currently in-flight**. This provides us with a wonderful opportunity to kill so many proverbial birds with a single proverbial stone. Such an opportunity only comes rarely, even at an institution of our size and scope.

Finally, we would like to congratulate the author of this SBAR for a thorough writeup, and a thorough examination of Cerner Model Standard. This made it easy for us to come to the appropriate decision, with a minimum of

additional inquiry. We are particularly pleased with how deep the investigation of Model was in this particular case.

As such, we are deputizing Ivory, Schaffer, and Webber to do the following:

- Attend the Cerner Behavioral Health project meetings and explore the possibility of rolling out Cerner Model COWS to all in an expedited fashion.
- Interface with the requestors to bring them aboard with the above.
- Report back to the Council on progress and final plans.

20180618 SBAR ONCOLOGY FLOWSHEET (ADD AMYLASE, LIPASE, TSH, FREE T4, CALCIUM, ALBUMIN; REMOVE TOTAL PROTEIN)

SBAR

S: The Oncology Flowsheet in Cerner is used by the clinical pharmacist to verify and check labs, weights used, dose calculation, and evaluate for appropriate rounding. The flowsheet does not contain the necessary lab results to provide a complete picture to deliver immunotherapy to our patients in a timely manner.

B: The Oncology Flowsheet in Cerner displays certain pertinent patient care information including but not limited to protocol treatment medications, treatment medications, selected lab results, body measurements, *etc*. Since a rapidly increasing number of patients are being treated with immunotherapy compared to traditional chemotherapy and many of our cancer patients experiencing bone metastases and the need to receive treatment with bone-modifying agents, the selected lab results list on the flowsheet needs to be update to address these treatment regimens.

A: Immunotherapy has a unique side effect profile (immune related adverse effects) compared to traditional chemotherapy. Some of these immune related adverse effects include immune-mediated pancreatitis and immunemediated endocrinopathies. To prevent a delay in treatment and possible severe patient harm, the addition of amylase, lipase, TSH, and T4 lab results need to be added to the Oncology flowsheet. Additionally, bone-modifying agents can cause severe hypocalcemia; therefore, we need to monitor calcium and subsequently albumin (in order to perform a corrected calcium equation). Currently, listed is total protein. It does not provide any important dosing, efficacy, safety, and/or monitoring function. In addition to improving patient safety, quicker profile review in Cerner may result in shorter wait times for patients and increased chair turnover time.

R: In order to streamline adverse effect monitoring and enhance patient safety, the following recommendations are being requested to the Oncology Flowsheet in Cerner:

- Add:
    - Amylase
    - Lipase
    - TSH 3rd gen
    - T4 Free Direct
    - Calcium
    - Albumin
- Remove:
    - Total Protein

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: This is mostly a well-written SBAR. It does have two issues, both of which are illustrative for future requestors. First, this document bears no indication that a Cerner Model investigation was done, even though we were able to learn through other sources that such an investigation had actually been done. **Any SBAR that comes to this Council needs to, at a bare minimum, have a notated investigation of where this request is relative to Model.** Second, we are not moved by claims of patient harm without evidence of the same. We must become a data-driven organization in order to survive – and we must base our decisions based on data rather than opinion. Therefore, **from here on out, no SBAR may cite patient harm without attaching hard evidence of the exact harm the recommendation is purported to solve**.

We reached out to the Cerner strategist for PowerChart Oncology and learned that it is indeed within Model to have these labs in the Oncology Flowsheet. As such, it is our pleasure to **APPROVE** this change, but as something we need to monitor as Model continues to evolve in this space. It is interesting to note that we recently did have what was supposed to have been a comprehensive comparison of Cerner, and there was no discussion about what constitutes a Model-compliant Oncology Flowsheet. This highlights one of the weaknesses of the Cerner Model Experience as we know it – it is often difficult to get at the source of truth. We do not blame the requestor in this – it even appears that the investigation was done and the proper conclusion was reached, but was not written down in the SBAR.

20180618 SBAR RICHMOND AGITATION SEDATION SCALE (RASS)

SBAR

S: The Richmond Agitation Sedation Scale (RASS) is not being documented consistently when a sedation medication is titrated and administered.

B: When titrating and administering a sedation medication, the nurse must navigate away from the medication administration window to the IFlowsheet to document the RASS. This creates discrepancies in the documentation as to whether the nurse completed a RASS in a timely manner or one at all when titrating the medication. Joint Commission cited the AHC during the last survey for this issue. During the mock TJC survey that occurred earlier this year, the issue again was noted.

A: Joint Commission standard regarding medication administration of titration orders require the element of an objective clinical endpoint – RASS score, CAM score, etc – to be documented for patient response and/or numeric target. The documentation must accurately reflect order changes based on this clinical endpoint (MM.04.01.01). Regarding Cerner Model, per Malia Welhaven – Cerner has this issue under review and will be adding this to model.

R: Follow Cerner's recommendation to add the option to the pharmacy IV OEF for the RASS so it can be documented by the nurse when titrating and administering the medication.

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: This is an excellently-written SBAR. We are particularly gratified with the intensiveness of the Cerner Model investigation, and with the requestor's forward-thinking alignment with future, rather than current, Cerner Model. Such well-written and well-reasoned requests bode well for the evolving culture of our EMR.

As such, this Council is delighted to **APPROVE** this change. We recognize that the proverbial Devil is in the details – so when the buildout of this change occurs, it must occur in an exact Cerner Model Standard fashion. Otherwise, we absolutely look forward to this nursing satisfier.

20180618 SBAR WEIGHT RULE CHANGES

SBAR

S: Weight variance rules and an IU Health policy permitting only physicians or pharmacist to enter a weight for calculation (WFC) have created the unintended consequence of delaying treatment. Weight variances, especially higher weights than expected, occur frequently in our patient population.[1] The delay occurs as a WFC is not generated when the weight entered falls outside the established range; WFC then requires data entry by a physician or pharmacist. (The issue was only partially addressed by a recent change in the pediatric ED rule logic.)

Today IU Health has eighteen (18) rules related to patient weight (see below), many of which trigger on any weight entry (inpatients are often weighed daily)

B: An absent or inaccurate WFC can have significant, immediate negative consequences, especially for medication dosing. In an attempt to ensure (1) an actual weight is entered on admission and (2) the weight entered is accurate, IU Health has created Discern rules in Cerner. Despite that, in the past six months, 29 reported medication variances were attributed at least in part to weight entry errors.

There are no Cerner Model Experience recommendations related to patient weights or the weight process [https://modelexperience.cerner.com/foundations/Weights?section=overview] beyond ensuring an accurate weight is entered and a list of weight DTAs beyond measured weight that far exceed what we currently use at IU Health [https://modelexperience.cerner.com/foundations/Weights?section=localization].

A: Simplifying and minimizing weight rules will contribute to the larger effort of improving system performance and workflow efficiency.

Given the state (or weight) of the state, the rule limits for actual weight generate too many false positives. If there is a continued need to evaluate for data entry errors (fat fingered entry; entry in pounds instead of kilograms; weight entered in the wrong chart), then the weight range should be widened. Having said that, there is little evidence that weight guardrails are effective.

The policy that does not permit immediate correction by the nurse of a WFC entered in error unnecessarily delays the entry of the correct weight in the EMR.

R: Modify or inactivate patient weight rules as follows:

- **1_WEIGHT_TO_WEIGHTFORCALC**
  - *Description:* Commits actual admission weight to weight for calculation DTA and evaluates variance from standard or previous weight entry; does not create WFC if variance exists.
  - *Recommendation:* Simplify rule to create WFC only. Permit the clinical event of inpatient actual admission weight or outpatient weight to create the patient's WFC without restrictions.
- **ADE_WEIGHTCHANGE_1**
  - *Description:* Alert if weight varies by 10% (pediatric patients) or 15% (adults) from previous weight.
  - *Recommendation:* Exclude pediatric patients. Alert only for actual admission weight (i.e., WFC). If an entered weight receives the weight variance alert, generate an order: Verify per Nursing (Specify) with Special Instructions: An alert was triggered based on an entered patient weight; verify the accuracy of the weight as it may be used for medication dosing. Order/nursing task link to Pharmacy Body Measurement PowerForm where WFC may be corrected, if required. Modify Pharmacy Body Measurement PowerForm to include a field to document weight verification [the form is currently not available to nurses]. If a non-licensed caregiver triggers the weight variance alert, the alert should instruct the caregiver to inform a nurse and place the order as described above.
- **ADE_WEIGHTCHANGE_2**
  - *Description:* Alerts for weight outside 97th percentile; orders: Verify WFC with details r/t percentage change.
  - *Recommendation:* Eliminate or alert only for pediatrics with weight variances above/below an established, **wider** range (UMKC experienced a similar problem. They took the 97th percentile as ~125% of the mean, and increased the rule limit to ~140% of the mean. A similar change was made to the lower limit. The changes halved the number of alerts presenting[2]). Additional changes to the alert and charting access as noted above.
- **1_ORDER_ACT_WEIGHT_TIMER** and **1_ADMISSION_HEIGHT_WEIGHT**
  - *Description:* Establishes EXPERT_EVENT to time admission height/weight rule (1_ORDER_ACT_WEIGHT_TIMER). Places order to Obtain Actual Admission Weight when no weight is documented 4 hours after EXPERT_EVENT (1_ADMISSION_HEIGHT_WEIGHT).
  - *Recommendation:* Revert to Cerner Model single rule that creates admission and ongoing assessment orders (BCC_ADMISSION_ACTIVITY_7 in Model inventory).
- **EK_CE_IDEAL_BODY_WEIGHT**
  - *Description:* Calculates and posts Ideal Body Weight (that may be used for establishing ventilator settings).
  - *Recommendation:* Inactivate. Use the Clinical Calculator within PowerChart to determine ideal body weight.
- **1_WEIGHT_TO_WFC_OP2**
  - *Description:* Outpatient rule that compares weight entered against standards.
  - *Recommendation:* Inactivate as there are fewer risks associated with an error in the outpatient venue.
- **1_CREATE_PERCENT_WTCHANGE**

    - *Description:* Calculates percentage of weight change between two weight entries; value in HIDE grouper, not used in rules/reports.
    - *Recommendation:* Inactivate as not currently used.
- **1_CREATE_FENTON_GROWTH**
    - *Description:* Plots weight on pre-term growth chart.
    - *Recommendation:* No change (could find no reference in Cerner Model rules).
- **1_HEP_B_WT_ENTERED_NOTICE**
    - *Description:* Alerts for NICU patient greater than 2kg with no Hep B vaccine or documented contraindication.
    - *Recommendation:* Clinical evaluation of appropriateness of rule driven process.
- **ADE_SYN_HT_WT_ALLERGY_V2**
    - *Description:* Alert for med entry without allergies, or weight for calc.
    - *Recommendation:* No change; rule aligns with Cerner standard rule PHA_STD_HTWTALLERGY_3.
- **ADE_SYN_WT_CALC_IV**
    - *Description:* Alert when ordering normalized medication and no WFC exists.
    - *Recommendation:* Inactivate and replace with missing WFC alert.
- **EK_SYN_PCO_WT_BASE_DOSE**
    - *Description:* Prevents oncology providers from signing orders still in a normalized dose and not in a finite dose.
    - *Recommendation:* Improve efficiency by adding positions to evoke logic.
- **1_CREATE_WEIGHT_REMOVAL**
    - *Description:* Calculates weight removed by dialysis.
    - *Recommendation:* Inactivate and calculate weight removed by dialysis on I-Flowsheet.
- **ADE_WEIGHT_ESTIMATED_RPH**
    - *Description:* Order and printed message when pharmacy enters WFC as ESTIMATED.
    - *Recommendation:* Inactivate as absence of WFC rule will address.
- **ADE_WEIGHTCHANGE_WFC** and **ADE_WEIGHTCHANGE_WFC_2**
    - *Description:* Printer alert for 10% (pediatric patients) or 15% (adults) variance from previous WFC. Establishes EXPERT_EVENT to time additional rule (ADE_WEIGHTCHANGE_WFC). Based on EXPERT_EVENT, places order Verify WFC with details about percentage weight change (ADE_WEIGHTCHANGE_WFC_2).
    - *Recommendation:* Inactivate both alerts as logic is contained in others.
- **Miscellaneous**
    - Ensure patient scales in all clinical sites weigh in grams/kilograms only.
    - When/if rules and processes related to patient weight change revert “Weight for Calculation” to the standard Cerner label “Dosing Weight” (the label used in the IV infusion pumps).

FOOTNOTES

[1] In the most recent population data available, Indiana ranks 10/51 states in adult obesity. Childhood obesity ranking is from 9th (10- to 12-year-olds combined overweight and obesity rate) to 26th (2- to 4-year-old WIC participants). This data is culled from stateofobesity.org.

[2] Johnson T, Nelson K. 2010. “Identifying weight entry errors in a growing pediatric population”. Cerner Health Conference. Kansas City, MO, USA.

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

SEE BELOW.

Summary of Discussion: We completely understand the desire and the need to put this set of changes before the CHIO Council. We worry, however, that so many discrete changes entered in a single form cause some amount of context to be lost. As such, overall we **APPROVE** the changes, but there are a few that require further discussion. Furthermore, **there will be clinical impact** when these changes are made. We need to begin educating months in advance of the actual go-live for these changes. Requestor is instructed to interface with Webber for a final pass-through (especially on the **Webber Deputized** items below) and with Lovely to develop a deployment plan.

- *1_WEIGHT_TO_WEIGHTFORCALC:* **APPROVED.**
- *ADE_WEIGHTCHANGE_1:* **WEBBER DEPUTIZED.**
- *ADE_WEIGHTCHECK_2:* **WEBBER DEPUTIZED.**
- *1_ORDER_ACT_WEIGHT_TIMER and 1_ADMISSION_HEIGHT_WEIGHT:* **APPROVED.**
- *EK_CE_IDEAL_BODY_WEIGHT:* **APPROVED.**
- *1_WEIGHT_TO_WFC_OP2:* **APPROVED.**
- *1_CREATE_PERCENT_WTCHANGE:* **APPROVED.**
- *1_CREATE_FENTON_GROWTH:* **APPROVED.**
- *1_HEP_B_WT_ENTERED_NOTICE:* **WEBBER DEPUTIZED.**
- *ADE_SYN_HT_WT_ALLERGY_V2:* **APPROVED.**
- *ADE_SYN_WT_CALC_IV:* **APPROVED.**
- *EK_SYN_PCO_WT_BASE_DOSE:* **APPROVED.**
- *1_CREATE_WEIGHT_REMOVAL:* **APPROVED.**
- *ADE_WEIGHT_ESTIMATED_RPH:* **APPROVED.**
- *ADE_WEIGHTCHANGE_WFC and ADE_WEIGHTCHANGE_WFC_2:* **WEBBER DEPUTIZED.**
- *Miscellaneous:* **APPROVED.**

20180620 SBAR EXCLUDE ORDERS RECONCILIATION FROM SIGN NOT AUTHENTICATE

SBAR

S: IU Health implemented sign, do not authenticate in January 2018. Since that time, review of document flow through authorship to authentication has been reviewed and some note types identified that are not being authenticated by attendings.

B: Prior to sign/do not authenticate, resident notes were authenticated and finalized without attending signature. Some documents that do not require signature include work that is delineated in medical staff policy as being performed independently.

A: Of notes that are not authenticated, the 'orders reconciliation note' is autogenerated upon review of the orders at transfer between units. This note accounts for a high percentage of 'unsigned' notes. It is a product of chart review (autogenerated), and not truly "authored" or written by a physician.

R: Change "orders reconciliation" note type to the same category at "phone messages" (*i.e.* exclusion category).

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: This happens to a be a straightforward reversion to Cerner Model Standard that will also be a large-scale physician satisfier. We are therefore happy to vehemently **APPROVE** this change, and ask that it go forward as a high-priority item.

20180622 SBAR TRANSCRIBED LABS ADHOC FORM (FASTING GLUCOSE)

SBAR

S: Since going live with HealtheRegistries we have to manually migrate the Fasting Glucose values in order to meet the Diabetes Measure. There is not place in on the Transcribed Labs Ad Hoc forms to manually enter this information. We need Fasting Glucose to be able to migrate this data to meet this measure.

B: Need to be able to migrate Fasting Glucose into Cerner for Union Health.

A: Currently there is no way to migrate Fasting Glucose for Union Health.

R: UMG is requesting Fasting Glucose on the Transcribed Labs Ad Hoc form in order to meet the Diabetes measures in HealtheRegistries.

CHIO COUNCIL DELIBERATION

Discussed live at the 23 July 2018 CHIO Council Session.

VERDICT

PROVISIONALLY APPROVED / REVERT TO CERNER MODEL WITH RLN.

Summary of Discussion: The long-term solution for this problem is the implementation of the Cerner Reference Lab Network (RLN) interface for LabCorp, which supplies the vast majority of the lab tests for Union. However, we will are in a position to go live with this interface yet, especially given the fact that LabCorp appears to have just recently suffered a major network breach (it is unclear but likely that there was a data breach). **Once RLN for LabCorp goes live, this will be our permanent solution and the need for Union to transcribe labs will drop precipitously**.

However, we are also in recognition that a solution is required for this, especially given the need to leverage HealtheRegistries. As such, we **PROVISIONALLY APPROVE** the recommendation of building out Fasting Glucose in the Transcribed Labs AdHoc form, unless there is a possibility for us to bring up RLN for LabCorp (for at least this one test) sooner. Simpson is deputized to lead this discussion moving forward.

20180723 SBAR MEDICATION CLINICAL DECISION SUPPORT (MCDS) TO MODEL

SBAR

S: Our Medication Clinical Decision Support (mCDS) build is not compliant with Model. This has caused large-scale duplication of medication-based alerts, and occasional unexpected behavior.

B: We have been working toward a reversion to Model in the mCDS space for almost a year now. We currently are in a halfway house situation, where we have some group of alerts active and others not. Furthermore, as with many Cerner Model reversions it is difficult to find the true state of Cerner Model Standard.

A: We have performed an initial gap analysis between our build of mCDS and what we believe is Cerner Model Standard. As noted in **Background**, there is some question about the true "source of truth" for Model in this domain and are investigating further.

R: Revert to Cerner Model Standard in mCDS. We propose the following course of action:

1. Interface with the Cerner Model Experience team, the Cerner IP team, and the Cerner strategist for PharmNet.
2. Perform a full-scale and rigorous investigation of the true nature of Cerner Model Standard in the mCDS and PharmNet spaces.
3. Validate our initial gap analysis and, once validated, publish it to the CHIO Council and the Pharmacy CIS.
4. Develop a full plan for total implementation and deployment of Cerner Model Standard in mCDS.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Commentary by Park: We are delighted to support this incredibly important initiative. It is especially important that we revert to Cerner Model Standard in this space in light of the following:

- Dose Range Checking will be on for physicians alongside the IV Infusion Management project.
- There are multiple idiosyncrasies in alerting with medications due to the hybrid nature of our mCDS build currently.
- The closer we are to Cerner Model Standard in this space, the more gracefully we will be able to take updates and upgrades.

  We are preparing for a future in which a microservices-based architecture that allows little to no customization will be the rule, not the exception.

31 MAY 2018

20180517 SBAR FALL RISK DOCUMENTATION

SBAR

S: IU Health implemented an updated and contemporary Fall Prevention Strategy in March 2018. The current state of Cerner documentation and workflow does not support the updated fall prevention strategy. Documentation of fall risk assessment is a Joint Commission standard.

B: Analysis of fall prevention literature suggests that fall risk assessment tools may or may not help keep patients safe from falling while in the hospital. An analysis of factors associated with falls with injury at IU Health suggests that care team communication and culture are the most common contributors to falls occurring in our system. Patients who fall at IU Health are distributed across age groups and diagnoses, dispelling the myth that only the elderly fall. Keeping patients safe from falling is the work of the entire care team: physicians, nurses, pharmacy, nutrition services and therapies and must involve the patient and family.

A: Current state workflows place the fall risk assessment separate from the context of the nurse's physical assessment, thus making the risk assessment a "task" rather than a tool to support the nurse's clinical judgment.

R: Revert to Cerner Model workflows for fall risk documentation for both adult and pediatric patients.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: Cerner Model Standard for adults is Morse; for pediatrics it is Humpty Dumpty. We are pleased to be able to approve this highly important endeavor.

20180518 SBAR CTA AND CTV HEAD

SBAR

S: Neurology Council physicians brought to the attention of the Clinical Effectiveness team that there have been several instances of errors with Cerner orders for CTA and/or CTV Head...Neck (Inpatient and Outside) noting that when ordering a CTV brain but instead, a CTA of brain was done.

B: Clinical Effectiveness Project Manager for Neurology rounds regularly with physician council members to prepare agenda items for upcoming council work and discuss any issues or concerns they may have. While rounding in October, Dr. Alan Schmitt stated that that the "Outside CT Head Neck Angio/CTA and or CTV order in Cerner had caused and error and he asked that the council review this to see if the orders should be separated. He ordered the Venogram and radiology did the Angio, resulting in the patient returning for a second test. Dr. Bhatt

also noted several issues and errors and could provide one documented error on a patient he saw. This was shared at the 1/18 Clinical Council meeting and again on 3/8 as a follow-up item. Project Manager reached out to Todd Stanley in Radiology to receive guidance on this issue on 2/19. Todd notified Nancy Davison asked her to reach out to Dr. Bhatt and she did so on 3/5. Todd also indicated this would be discussed at the CT Collaborative on 3/8. Todd Stanley indicated that in more than 4 years there hasn't been an issue, and that some re-education of techs would help. Project Manager also engaged Judy Gruber from IS to obtain screen shots of the orders within Cerner and receive a demo of how the orders are selected. The physicians may not be submitting incident reports to document the issue/errors. They are requesting that the orders be separated into 4 different orders in order catalogue as follows:

1. CTA brain with contrast
2. CTV brain with contrast
3. outside CTA brain with contrast
4. outside CTV brain with contrast

A: Neurologists on the council have noted multiple errors in testing when the CTA/CTV order set is utilized and has resulted in incorrect testing, patient inconvenience and delay in diagnosis and treatment. The council recommended the orders be separated and after the 3/8 communicated to IS, Radiology leadership.

R: The council recommended that the orders be separated into 4 different orders, as follows:

1. CTA brain with contrast
2. CTV brain with contrast
3. outside CTA brain with contrast
4. outside CTV brain with contrast

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: This is a poorly-written SBAR. The Background section in particular contains elements of an Asssessment and a Recommendation. There does not appear to have been an attempt to reconcile with Cerner Model Standard. It must also be mentioned that it is not the duty of IS staff to submit SBARs to the CHIO Council from the Clinical Councils; that duty lies with the Project Managers and the Clinical Informatics staff embedded in each Clinical Council. As of next cycle, these deficiencies would have earned this SBAR a summary denial. However, we have also been made aware that this particular SBAR actually was written in March 2018, and at the beginning of this process leniency is called for.

Cerner Model Standard dictates that not only should CTA and CTV be separated out, **so too should MRA and MRV for the same reasons**. This falls in line not only with our philosophy of adhering to Cerner Model Standard, but also with an ongoing project to true up the Radiology orderables catalog altogether. Requestor and Clinical IS are ordered to therefore proceed in a 100% Cerner Model Standard compliant fashion in this domain, for both CTA/CTV and MRA/MRV.

20180518 SBAR PULMONARY REHAB MESSAGE CENTER ACCESS

SBAR

S: We have had physician requests for the Pulmonary Rehab RT position to have Message Center permissions.

B: The Pulmonary Rehab Cerner position does not currently have Message Cerner capability, but as an outpatient location (not located directly in the Pulmonologist's offices, it would serve them well to have this feature added to their position.

A: Communication between the Pulmonologist and the Pulmonary Rehab therapist will be improved which in turn would improve immediate communications with patients in the pulmonary rehab program.

R: Allow Pulmonary Rehab team members' access to Cerner Message Center. Position name: PulmReh:Specialist.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: We congratulate the requestor for a succinctly-written SBAR. We are also pleased to note that **it is a Cerner Model Standard recommendation to allow Pulmonary Rehabilitation RT to have access to Message Center**. As such, this request is summarily granted.

20180518 SBAR TRILOGY VENT

SBAR

S: Riley has purchased new ventilators (Trilogy) for long-term/home care patients which correspond to home ventilators many of our pediatric patients utilize in the outpatient setting. More home care companies are utilizing this vent and patients are uncomfortable being placed on a different vent when they are admitted, so Riley has purchased several of the vents to accommodate in-patient admissions.

B: Trilogy currently exists as an option for devices in Cerner, but charting specifics were never added as it previously was only noted as the patient's home vent. Since we now own them and will be manipulating them, we need detailed charting options added to the i-flowsheet.

A: Without parameters specific to this ventilator, Riley RCP team members will not be able to document appropriately on these long-term patients.

R: Respiratory Care is requesting addition of Trilogy-specific parameters to the i-flowsheet to meet the needs of documentation of the Trilogy ventilator.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

PROVISIONALLY APPROVED.

Commentary by Park: This particular SBAR is short, succinct, and well-written. The requestor is to be congratulated for this. The request skates very close to being a "Run the Business" type change – we have a device in operation currently that must be supported. That being said, we want to make sure we are doing the right thing and we are working in a Cerner Model Standard compliant fashion. **As such, Webber and Miller are assigned to complete an investigation on this matter**.

30 MAY 2018

20180326 SBAR POST PARTUM RISK ASSESSMENT

SBAR

S: OB EMR has requested/approved changes to the Post-Partum Hemorrhage Risk Assessment. This will eliminate a task.

B: Currently, the Post-Partum Risk Assessment is initiated on admission and then charted from the task list. To facilitate optimal workflow it is recommended that the assessment be a part of the OB Triage Admission Form. After the initial risk assessment is charted it will then be available from the I Flow sheet.

A: Cerner model supports this change. Angela Thompson and Joyce Reynold obtained standards from Cerner to clarify if this was model. See attached information. The recommendations were found to be model standard for Cerner as well as an addition of a post-partum hemorrhage calculator.

R: Place Post-Partum Risk Assessment on OB Triage Admission Form and make it a required field. After initial assessment. LCV will carry over and assessment can be charted from I Flowsheet. In the future will move toward adding Post-Partum Hemorrhage calculator.

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

REVERT FULLY TO CERNER MODEL.

Commentary by Ivory: Why would we not add the calculator at the same time? Recommend approving with the addition of the calculator. Furthermore this is a part of (a) PowerChart Maternity and (b) Model for such.

Commentary by Schaffer and Webber: Concur with Ivory.

Commentary by Park: We also need to investigate whether the fields are actually required or not. We congratulate the requestor for reaching out and ascertaining what Cerner Model Standard states for this space. When we revert to Model, it makes sense for us to do so all the way, rather than by using half measures.

20180430 SBAR VASCULAR ACCESS TEAM CARE TEAMS LIST

SBAR

S: Bloomington's Vascular Access Team is in need of building a Care Team list that can be shared between our team members to help with patient follow up.

B: Bloomington's Vascular Access Team has created custom patient lists for each team member in an effort to monitor all central lines in the hospital. This process must be updated for each individual Vascular Access Nurse each day and takes a lot of time to complete. The team is asking for the ability to build a shared list that updates across all Vascular Access Team members.

A: The team is asking for the ability to The team is currently in an EV Radiology: Nurse Role so they can use the multi-patient task list. A "Bloomington Vascular Access Team" Care Team list has been created, but the radiology nurse role does not have the option to set up their Care Team list.

R: The recommendation is that the EV Radiology: Nurse Role have the option turned on for them to manage a CareTeam list. It is part of Cerner Model that nursing roles have access to building Care Team lists.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Commentary by Park: This is absolutely in line with Cerner Model Standard. The pertinent guidance from the Cerner Model Experience Wiki on Care Team lists is as follows:

> *Care Team Patient Lists are helpful in a situation where the need to provide flexible access to a list of patients is more important than strict control of patient access or automatically adding patients to a list. Care team lists may be the list of choice in academic medical centers. In care teams, a database coordinator builds a care team list once, like Renal Team Blue for example. No caregivers are actually associated with the list and no members are built on the care team. Some sites report that the movement of members between teams is so fluid that maintaining a precise list of team members is not practical. An example of this situation is the movement of residents between teams. Using care team lists, any user can add the Renal Team Blue list to their Patient Lists. The residents covering the patients typically add and remove the patients. The benefit of this approach is that the lists are open and no one has to maintain what residents are on the team.*
>
> *When you build a care team list, patient entries are not generated automatically. You must manually enter the patients you want to include. You can add patients to or remove patients from the list. Care team lists are encounter-based and honor organization security profiles. Care teams are built in the Provider Group Tool.*

As such, this request is **approved** and the requestor is ordered to work with Busch and Welhaven to make sure that the Care Team list in question is built out in an entirely Cerner Model Standard-compliant fashion.

20180501 SBAR PRESCRIPTION FILTERING IN MCDS

SBAR

S: Providers are receiving drug-drug duplication and interaction alerts between prescriptions when they were inpatient medications being converted to prescriptions for continuation post-discharge.

B: When we converted and standardized alerting for drug-drug duplication and interactions to all clinicians through mCDS, the number of duplicate therapy alerts increased in PowerChart. Not all of these alerts are meaningful to the clinician. Cerner has the ability to do a one-time alert suppression (called Prescription Filtering) on both drug-drug interaction and drug-drug duplication alerts between prescriptions if the patient was receiving the medications as an inpatient. For example, a patient is on ciprofloxacin and warfarin while an inpatient and is going home with prescriptions for both medications. In current state, the provider would receive a Major – Contraindicated drug-drug interaction for these two prescriptions. With Prescription Filtering turned on, the physician would not receive that alert. Another example is when the patient is being prescribed two warfarin prescriptions for differing dosages (Ex: 4 mg and 5 mg). Current state the prescriber would receive a drug-drug duplication alert. With this Prescription Filtering turned on, the prescriber would not receive the duplicate therapy mCDS alert if the patient was receiving those dosages inpatient.

A: The options are to:

1. Set **Prescription Filtering** in Bedrock to "Yes" and apply a one-time filter for drug-drug interaction and drug-drug duplicate alerts in mCDS.
2. Keep **current state** and continue to receive the alerts. Look at whether the drug-drug interactions and drug-drug duplication alerts should be suppressed in all ordering venues.

R: Set Prescription Filtering in Bedrock for mCDS to "Yes".

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

APPROVED (OPTION 1).

Commentary by Webber: Please clarify what is model recommendation for the preference, and whether the preference change would apply to all alerts. As stated, it does appear that although a high proportion would be nuisance (duplication when converting an inpt med to home Rx, for example), but conversions, etc. might still be desired notifications. Thank you!

Commentary by Park: Model in this case is as the requestor recommends.

Commentary by Buckwalter: Our current strategy is to follow the model. Sounds like we should vote yes on this SBAR. My only reservation is the law of unintended consequences - if we have other non-standard workflow built in this module, will we create a patient safety issue if we turn the alerts off?

Commentary by Schaffer, Ivory, and Oates: Concur with Buckwalter.

Commentary by Park: Therefore, we are pleased to **APPROVE** this request. Buckwalter is correct to urge caution. Alerts are an area that we have monitored very strictly for safety effects, and we will do standard monitoring in this respect.

20180507 SBAR PCA ORDERING

SBAR

S: Order details for Patient Controlled Analgesia (PCA) parameters are currently included in Order Comments. When modifying these parameters, leading zeroes are not required for doses containing a decimal point. A med variance was identified when a dose of .6 mg was interpreted as 6 mg. Modifications of the order comments for PCA dose changes have been missed and the PCA not updated by nursing.

B: Today, PCAs are built as intermittent infusions and order details are built in the Order Comments so that each parameter displays on a separate line when hovering over the order in the eMAR. Cerner Model Build is to include the PCA parameters in discrete fields as a Continuous Infusion. However, as a continuous infusion, this creates a required field for ____mL/hr during the initial charting. This mL/hr is not included in any of the PCA parameters, so information charted will be confusing to the nurse and would increase the risk for error. Charting of the PRN response would not be available with a continuous infusion. Indianapolis Coalition for Patient Safety noted that IU Health is the only hospital which still has the dosing parameters in the order comments, but the other five health systems in Indianapolis use discrete fields for their PCA parameter orders.

A: The three options are:

1. Keep current state and re-educate on order entry of leading zeros and reeducate nursing on double checking when programming or reprogramming a PCA pump.
2. Build out the dosing parameters for PCAs as discrete fields and have the orderable be a continuous infusion.
3. Build out the dosing parameters for PCAs as discrete fields and have the orderable be an intermittent infusion. Screenshots of current state and the proposed intermittent future state are attached.

R: Implement Option 3 where the dosing requirements for PCAs are discrete fields with leading zeros (if applicable) and required fields. Continue with the build being intermittent infusion and not a continuous infusion. The major change for providers is that the parameters will be in the Order Details instead of Order Comments. The major change for nursing is how the PCA parameters will display on the MAR and when hovering over the order. The major change for pharmacy will be where to find the dosing parameters and any order modifications to the PCA dosing will need to be made in PowerChart instead of Med Manager. Education will be included in the monthly IS Newsletter.

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

APPROVED (OPTION 3).

Commentary by Webber: Approve this long awaited, important step in medication safety.

Commentary by Oates: Concur with Webber.

Commentary by Schaffer: Concur with Webber.

Commentary by Park: We congratulate the requestor for a very clearly written SBAR. This is a major change and we will have to educate in a very detailed fashion. We look forward to the implementation of this, as we do believe that it will be a boost to medication safety. However, we also believe that publication in the IS Education Newsletter will likely not be sufficient; therefore, **the requestor is to work with the Federated Education Taskforce to come up with and execute an education plan on this matter**.

20180507 SBAR REQUEST FOR BARIATRIC SUPPORT GROUP ATTENDANCE FIELD

SBAR

S: Bariatric Surgery patients are required to attend Support Group in preparation for surgery. This is a Program and often an insurance payer requirement, which requires clear documentation of attendance. There is currently no place in the medical record for Registered Dietitians to document this outside of free text fields.

B: This ad-hoc form is only used by our Bariatric Surgery team at IU North. This will not have an impact on any other team in the organization

A: We believe adding Support Group Attendance to an existing AdHoc form used by our Registered Dietitians will meet this documentation need for patients, improve clarity and adherence to this Program standard, and reduce, to some degree, the additional free text documentation required for each patient.

R: We are requesting to add a line for additional patient documentation to the Bariatric Nutrition Initial and Follow Up Assessment form to include "Attended Support Group" in the Follow Up page of the ad-hoc form. Please see the attached image of a screenshot where we would like this change to be made on the ad-hoc form.

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

FURTHER EXPLORE WORKFLOW AND CERNER MODEL.

Summary of Discussion: We recognize the potential payor requirement in this space. We also thank the requestor for bringing this SBAR to our attention – we find it enlightening as we traverse our IDN and take stock of our present state not just in this area, but in all areas. While it would be simple enough to add a field to this form, the following significant issues have arisen:

- The requestor states that this form is only used at IU Health North.
    - We do not support one-off process; nor do we support EMR changes that are utilized by only a small group when there needs to be a statewide strategy.

- Cerner Model Standard actually has a PowerForm that at least overlaps somewhat with the requestor's ask: the Bariatric Nutrition Assessment PowerForm.
    - We do not appear to have a statewide strategy for capturing of this kind of information at present.
    - In the absence of such a statewide strategy, it is our duty to build out Cerner Model Standard.
- There appear to be other instances in other specialty surgery – both pre-op and post-op – where there would be payor requirements just like in bariatric surgery.
    - It is better for us to provide more generic tools that are Cerner Model Standard, rather than specific ones that are custom.
- There exists an ERAS Workgroup at IU Health – the issue of statewide workflow is better addressed there.
    - The technical options here are actually coalescing as we speak:
        - Cerner Clipboard
        - Twistle
    - We must use current standard tools as these options come online.
- More Model investigation is also necessary, as there appears to be a fair amount of ambiguity in this space.

As such, we are unwilling to approve this request at this time. **This matter is referred to the General Surgery Clinical Council and the ERAS Workgroup for further deliberation on workflow standardization**.

20180511 SBAR IV_INGRED_AMNT

SBAR

S: Nursing staff are not able to modify the dose when charting drips they mix on their own from products pulled from Pyxis. Example: Insulin Regular Dose of 100 units in 100mL. The vial is 300 units. The nurse scans the vial, and the whole 300 units pulls into the charting window. From there, the nurse can't modify the dose and will appear 300 units was administered when the order was for 100 units. The resolution available in Cerner is to turn on pref (IV_INGRED_AMNT) to allow nursing to modify the dose to match that of the order.

B: The primary impact is to Critical Access Hospitals where the pharmacies at these hospitals are not open 24/7 which results in the nurse needing to pull drugs from PYXIS to mix their own IV drips. This PREF is not considered Model.

A: We have turned this pref on in CERT and it does resolve the issue described above. However, the pref will also allow any doses at any facility to be changed by nurses. The change would require minimal education for nursing. Members of the Med Integration Team have been involved.

R: Turn on this PREF in PROD to allow correct documentation of Continuous Medication drips when entire vial is not being used.

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

PROVISIONALLY APPROVED.

Summary of Discussion: This is a painful discussion because of the fact that this happens to be one of those rare instances where Model does not align with a regulatory requirement that exists amongst our Critical Access Hospitals. **We are well aware that the change advocated by the requestor is not adherent to Cerner Model Standard**. However, our investigations have also found that in the majority of Cerner CommunityWorks Hubs (single cooperative Cerner builds shared by multiple Critical Access Hospitals), the Preference advocated by the requestor is indeed **ON**.

This situation is not dissimilar, philosophically, to something we uncovered during the time we took Sign Not Authenticate live. In Cerner, a Preference exists that, if ON, causes the Attending Physician to take over authorship of the note. Such a workflow would be appropriate if the note was originated by a Scribe, but not if the note was originated by a Resident or a Fellow. It is clear to us (and now to Cerner) that this Preference would be better off working in reverse: that is to say, there ought to be a Preference that can be set of Scribes to allow the authorship of their notes **to be taken over**, as opposed to a Preference that allows Attending Physicians **to take over** authorship.

In a similar light, we have petitioned Cerner to change Cerner Model Standard in this area such that the Preference in question is applied **at the Organization/Facility level** as opposed to at the Role level. It would be preferable for us to turn this functionality on, after all, only to our Critical Access Hospitals. Such an option does not currently exist. As such, we have no choice but to turn this Preference ON for all.

As such, we **approve this change until such time as Cerner changes its Model Standard**. Furthermore, we note that this is not a minor change to Nursing workflow – when a piece of functionality becomes available there will always be some who attempt to use it with or without training. As such, we order the requestor to **work with the Federated Education Taskforce and Cathy Ivory** to get a comprehensive education campaign going.

20180514 SBAR BLOOD ORDER SAFETY

SBAR

S: Clinical practice for pediatric and neonatal blood transfusions is weight based. A standard dose of PRBCs is 10-15 ml/kg and recommended pediatric practice. Current IUH Cerner EMR orders for pediatric blood currently require the number of units for blood bank to send, but the specific volume to be infused is not required and not always completed.

B: In 2017, a sentinel event occurred in which a pediatric patient received 5 times the recommended amount of blood, and in May 2018 there was an additional event which occurred where an 8kg patient received one unit or 33mL/kg of blood. In the second case, although the volume was filled in correctly, the default order forces the ordering physician to enter a “unit” value, leading to confusion. The clinical impact of a blood overdose includes stroke and organ ischemia from sludging, leading to potential brain damage (permanent, irreversible harm SSE 2).

A root cause analysis of the serious safety events produced several recommendations, which include standardizing the dose of blood in ml/kg and reducing calculation errors.

A: Model content from Cerner was reviewed and a survey was conducted by IUH pediatric informatics team via the UCern pediatric leadership council. Cerner lead pediatric strategist confirmed that the plan is to provide weight

based blood order sentences but they do not have currently have that model content. As a result, the majority of Cerner clients have already created their pediatric specific transfusion orders/order sets that reflect the ml/kg calculation. In Cerner Model content for Blood Transfusions, there are 3 Order sets that do not reflect weight based dosing (recommended practice).

R: Given the urgency and continued SSEs occurring, the recommendation is to partner with Cerner, blood bank, and Pharmnet team to adhere to pediatric clinical practice and reflect model content in 3 stages. Stage 2 and 3, require additional Cerner model content, however, current model allows us to proceed to with Stage 1 if approved by CHIO Council.

- *Stage 1:* for patients < 25 kg, force the volume to be infused component to be completed.
- *Stage 2:* Update the current blood orders using order flexing (EKM) functionality.
    - Patients less than 25 kgs will have weight based order sentences.
    - Remove/dither the order entry field of "units" for patients less than 25 kgs.
- *Stage 3:* Reconcile blood orders (approval by Blood Bank Manager, Heather Vaught) to include a dose calculator in blood orders for weight based auto-calculation of transfusion amount.

This recommendation has been reviewed in the context of the blood scanning project for 2018 and will meet the needs of that project as well.

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

PROVISIONALLY APPROVED IN PART (STAGE 1-2) AND DENIED IN PART (STAGE 3).

Summary of Discussion: There are parts of this request that are absolutely aligned with Cerner Model Standard (and technically feasible) and there are other parts that are either not aligned with Cerner Model Standard or are not currently technically feasible. Blood orders – due in part to the necessary linkage to Cerner PathNet – are not Medication Orderables; they are more akin to Lab Orderables and as such exhibit a very different set of technical nuances. In particular: a dose calculator is technically non-feasible due to the above.

However, the changes advocated in Stage 1 and Stage 2 can be done, and are **provisionally approved**. **Webber and Busch are assigned to lead a Cerner Model Standard investigation in this space.** Especially in light of the ongoing work on Cerner Bridge (Blood), we must be very careful in this space.

20180514 SBAR MILK LAB – LIQUID PROTEIN BULK LABELING FOR MH

SBAR

S: The Milk Lab (ML), housed at Riley, does not send Liquid Protein to the Riley at Methodist NICUs for Expressed Breast Milk fortification. This has been a request from Neonatologists in the past to add this delivery, but the decision was made not to send Liquid Protein by individual patient order due to the risk of inadvertently feeding the protein directly to the patient as a result of incomplete labeling. Normal additive volume is a small amount,

usually @1 mL, but sending enough for 8 or more feedings in 24 hrs. increases the supply to a large amount and makes the risk a considerable one, if mistakenly fed to the patient.

Liquid protein is key nutrition in the growth of preemies, and the inability to provide this to the neonates at Methodist is a concern to neonatology providers. Milk Lab has been working with Dr. Lien at Methodist on possible solutions to provide Liquid Protein to Riley NICUs at Methodist. Dr. Lien estimates that 3-8 NICU patients per day could benefit from the additive of Liquid Protein.

Methodist cannot stock their own Liquid Protein because they do not have a Milk Lab or single mixing location to control the inventory of the liquid protein.

B: Expressed Breast Milk Orders are built and routed differently at Riley Hospital than they are for patients at other IUH Hospitals. At Riley, the Milk Lab prepares all breast milk and labels the milk with the Cerner generated patient labels for floor delivery. Riley is currently the only IUH hospital that uses BCMA technology for expressed breast milk.

All other IUH hospitals share the Expressed Breast Milk order template, built as a a diet order, which does not have a field for Liquid Protein as an additive.

Donor Breast Milk orders are built the same across the IUH system and do include a Liquid Protein additive option. Donor Breast Milk orders for Methodist patients are routed to the Riley Milk Lab, so adding Liquid Protein to donor milk in the ML can occur and then be delivered to Methodist. This is also true of other Mixed Formula orders.

Only the Expressed Breast Milk orders used at Methodist have the workflow issue of not being able to add Liquid Protein to the order details.

A: Liquid protein is an important, missing additive to Expressed Breast Milk at Methodist. There is no option to select it in the orders template. Provider are currently adding the protein request in Special Instructions. This does not provide a label for the Milk Lab to attach to the liquid protein bottle.

Sending Liquid Protein in bulk for shared use for the Methodist NICU patients could be a possible solution, but ML wants to be able to safely label a bulk bottle. A bulk bottle would need standardized identification, including intended use and caution statements. ML also wants to be able to supply enough Liquid Protein for the 24 hr. period without oversupplying and having to waste due to the 24 hr.expiration. There is not a current workflow in place to allow ordering liquid protein for MH patients.

Cerner Model uses the Bridge solution for formulas and Breast Milk administration and scanning. IUH has not identified a timeline for Bridge as a project. Model formula orders, including Donor Milk orders, have an 'additives' field which includes Liquid Protein. However, the Model order for Human Milk does not have the same order template and does not include an additives field. There are only 2 detail fields for the Human Milk order: 1) Feed At Least, and 2) Special Instructions. The Model Human Milk order will not be conducive with the current ML workflow.

The Breast Milk Bar Code Scanning Expansion has not been identified as a project for 2018, though there have been discussions that IUH will choose this over Bridge in the future.

R:

1. Modify the non-Riley current template for the Expressed Breast Milk orders to include a Liquid Protein __mL field.
2. Build a report that will auto-run each morning in the Riley Milk Lab to query the 2 Methodist NICU locations for patients who have Liquid Protein ordered as an additive to Expressed Breast Milk.
3. Print two labels for Bulk Liquid Protein on the Riley Milk Lab label printer. Label information specifics to be determined by the ML director, but will be along the lines of: Bulk Liquid Protein, Not for IV, Refrigerate, Expires in 24 hrs.
4. Milk lab will then prepare bulk liquid protein, one bottle for each MH NICU and sufficient to cover the number of patients identified on the report, and deliver to Methodist on the daily run. Nurses will utilize the Bulk Liquid Protein bottle to fortify Expressed Breast Milk on-site at Methodist

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

PROVISIONALLY APPROVED IN PART (RECOMMENDATION 1) AND DENIED IN PART (RECOMMENDATIONS 2-4).

Summary of Discussion: We first want to address the SBAR as written: though it is very comprehensive, it is also overly verbose. There was universal agreement amongst the CHIO Council that the content could have just as well been expressed with half the words. In the same breath we recognize the requestor's desire to make sure we had all the necessary detail; that mission was absolutely accomplished and we feel well-equipped to adjudicate this SBAR.

As the requestor points out, **the proper solution to this issue is Cerner Bridge (Milk)**. Without it, we will always be in a situation where we are tempted to create custom workarounds. As such, a proposal has been written and submitted to CPT for consideration as a project next year. Furthermore, our system has suffered greatly from our tendency to create something custom instead of waiting for definitive enterprise solutions. In that respect, it is wise for us to constantly recognized that we arrived at the dubious honor of being the world's slowest Cerner build not by mistake, but **by intention** as we built up custom solutions.

We also recognize that there is the issue of inconsistency here: the Expressed Breast Milk orderable does not have a field for Liquid Protein when all others do. We are in agreement with the requestor that this inconsistency should be rectified (Recommendation 1). However, the other Recommendations (2-4) are too custom and too performance-onerous to be considered at this time. As such, **Recommendation 1 is approved and Recommendations 2-4 are denied.** We also assign Webber to perform a Cerner Model Standard investigation and report back in this space.

20180514 SBAR NM

SBAR

S: Need Cerner scheduling orderable NM Tumor Scan Whole Body Multi Day - based on CPT 78804 for a research study anticipated to begin June 1 at Riley Hospital for Children.

- *Study:* Multicenter Phase 2/3 Study of the Efficacy and Safety of Intraventricular Radioimminotherapy using Iodine-131-mu8H9 for Neuroblastoma Central Nervous System/Leptomeningeal Metastasis
- *Study Sponsor:* Y-mAbs Therapeutics, Inc.
- *Principal Investigator:* Dr. Kim Kremer (Memorial Sloan Kettering)
- *Local Principal Investigator:* Dr. Kamnesh Pradhan
- *Local IRB Approval:* Pending final IRB approval this month

B: An upcoming research study requires a scan that consists of the following: Day 1 injection (initial), followed by imaging at 4 hours (day 1), 24 hours (day 2) and 48 hours (day 3).

A: The IU Health Cerner orders team was consulted, there is currently no orderable in the catalog that will work for this exam. The appointment type NM Tumor Scans will be used, and no changes will need made to any appointment slots.

R: Build a new orderable: NM Tumor Scan Whole Body Multi Day. The orderable will be used to schedule the patient's appointments in Cerner Scheduling appropriately.

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

PROVISIONALLY APPROVED / HAND OFF TO IS RESEARCH DIVISION.

Summary of Discussion: We are pleased to be able to support the educational and research mission of IU Health. However, we have learned that the appropriate IS stakeholder – Dr. Saravanan Kanakasabai – has not initially been engaged. **This engagement must occur for any research need that has a Cerner EMR component**. We also know that for any such orderable, a hard sunset date and sunset process must be articulated and agreed to by all parties before build begins.

As such, build of this orderable is **provisionally approved pending approval by Dr. Kanakasabai and the IS Research Division**, and governance of this build shall be handed off to the IS Research Division.

20180514 SBAR PPD

SBAR

S: Cerner does not have professional looking, easy to read/interpret, report for PPD Skin Testing (administrations and readings) that could be provided to schools or employers as proof of testing.

B: This request initially came from Union (SR 2247096) for a PPD Skin Testing report from Cerner. It came through Ambulatory CIS before the CHIO Council was established. It was initially rejected. Cerner Standard workflow is to render the results of the administration and the reading to clinical notes that could be printed as separate documents. IUH Cerner sends the results to the flowsheet today. Rendering to a clinical note in addition to the flowsheet would promote duplication of information in a medical records print. It was suggested there are result reports that exist today within Cerner via the flowsheet that could print this information. Part of the problem was

that the administration and reading results for PPDs were not close enough together within the flowsheet to easily produce the results reports for the administration and the reading. It was suggested the items be moved closer together in the Event Set Hierarchy (ESH) to facilitate printing these reports. See Assessment for what we found during testing. At Union in their previous EMR system, they had TB form that allowed them to enter administration date, site, and fields to document when read at 48 and 72 hours with the ability to print out details on 1 sheet. When we asked about how PPD Skin Testing is documented and reported today at IU Health, there were multiple workflows. These involved using a paper form to document administration details and read dates/times, which was scanned into Cerner. This could be in place of or in addition to ordering and documenting the administration and reading in Cerner (See included paper form examples). The paper form is then provided to employers, schools, etc., as proof of testing and results. The means determined to produce this information from Cerner could be used by both Union and IU Health.

A: After the flowsheet updates were made in CERT to move the two results closer together and during the course of testing and documenting the electronic workflow, the following discoveries were made:

- The result reports (Medication Details and Result Details) were difficult to read and interpret by the end audience. The FAQ that was developed for the workflow included a legend to help the recipient of the report interpret the information (see last 3 pages of FAQ for sample reports and legend options). Even with a legend, it was felt that these reports may be difficult to read, interpret and didn't look very professional.
- The Medication Details (Administration) result report was inconsistently printing the medication name (tuberculin purified protein derivative 0.1 mL). It was suggested this could be a result of the customization to the ESH and that the work to bring the ESH to Cerner Model would not start until late in the year 2018. See example test report where the medication name was not present.
- No location information about where the PPD Skin Testing was performed (i.e. what clinic/facility or organization) was included on the report.

R: Reconsider building a report for PPD Skin Testing that:

- Is more professional for employers or schools.
- Includes information about where the testing was performed.
- Is easier to read/interpret.
- Consistently prints the medication name and other data needed to provide proof of testing, results, and where the testing was performed.
- Could be printed at time of administration and at reading, if needed.

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

REVERT TO CERNER MODEL / HAND OFF TO PRIMARY CARE CLINICAL COUNCIL.

Summary of Discussion: This happens to have been one of the first problems of Dr. Park's tenure, first surfaced back in May 2017. While there has been some progress in this domain, it is clear that we are not yet fully there. The discussion of the work on the Event Set Hierarchy in specific is particularly germane, as any report we would

seek to write at present would become completely broken once the Event Set Hierarchy is progressively reverted to Model throughout 2018-2019.

The requestor also rightfully points out that there appears to be no standard for this workflow at IU Health at large. It is never the right idea to build out something in the EMR when no clinical standard exists – such is the path of destruction upon which our IDN has traditionally trod. As such, **Dr. Weaver and his Primary Care Clinical Council** are the correct CC leadership to undertake standardization of this issue.

The requestor is absolutely right to have brought this issue back into our awareness. The requestor has indeed done our system as a whole a service: we deserve to have standard solutions that fit alongside Cerner Model Standard. As such, we will make sure that this matter is referred up to the appropriate CC leadership for deliberation. We will also be performing a further Cerner Model Standard investigation to make sure we align not only with the Cerner Model Standard of the present, but also of the future.

20180514 SBAR RENAMING RADIOLOGY SPINE ORDERS

SBAR

S: Delay in patient care and incorrect tests being performed on patients due to unclear and duplicative naming conventions, as well as difficulty finding correct orders in Radiology Department Order Entry.

B: There have been several incidents where incorrect spine radiology tests were ordered on a patient. Most of the time, the technologists catch the errors and place the correct order in the patient's chart. However, there are instances in which there are multiple tests performed or the wrong tests are performed because the error was not caught.

A: Upon assessment, there are multiple different variations of spine radiology order naming conventions in the order catalog (see attached).

R: Re-name the spine radiology orders to all begin with "XR Spine" to standardize the orders and align to Cerner Model Standard. Within the (attached) spreadsheet, proposed changes are indicated in green.

- Proposed Description column (B)
- Proposed Department Name (mirror of description) column (E)
- Nothing would change with the Synonyms or Outside Radiology orders
- Aligns with Cerner Model Standard – Radiology spine orders start with "XR Spine"
    - Model recommendation was gathered from the Orders Management Model Spreadsheet.
- Approved through Admin Radiology IT council – end of 2017.
- Clinical Rep: Joshua Allen, Director of Radiology

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

REVERT TO CERNER MODEL.

Summary of Discussion: This is a wonderful initiative, and is in line with the large-scale Cerner Model Standard we are doing with the EMR at large. However, we note that there is caution to be had:

- There are multiple radiology orderables that map to the same CPT code; this causes much confusion
    - On a CPT code basis, an MRCP = a Liver MR
    - But clinically these are not the same!
- It is clear that our nomenclature must give consideration with what the clinician wants to know, rather than what the CPT is
- Required fields for indication are useful (and Model) for exactly this reason

As such a **reversion to Cerner Model** in this space is absolutely warranted. Furthermore, **we are going to a Primary-only build over time**. We are aware that this will be a very large workflow change, and as such **the requestor is ordered to work with the Federated Education Taskforce to design and implement an appropriate statewide education campaign.**

20180515 SBAR RADIOLOGY ORDERS

SBAR

S: A group of IUHP Radiologists at IU Health Methodist Hospital would like to perform spinal interventional procedures in Fluoroscopy and CT but there are no existing orders within Radiology to accommodate these procedures.

B: Procedure orders in Radiology are built in conjunction with modality scheduling. This allows the scheduler to book the appropriate CT or Fluoroscopy room at the time the procedure is scheduled. At present, there is a backend manual process used to convert a dummy order to the appropriate order for billing and documentation purposes. This was done to determine if there was sufficient volume to warrant the build of a new set of orders for the different modalities.

A: The volume has grown over the past few months and now supports the need for the order build. The providers are performing 25-30 of the spinal procedures each week. Creating the orders will support growth which includes both new technical and professional revenue. The Orders Team supports Cerner Radnet and has indicated that they can make these changes easily. There is no conflict with the "standard model" because all of this work follows the current Radnet conventions. Suggesting that this fall under the "break-fix" rubric because providers would like to build a new business and the system cannot accommodate the need.

R: Build orders in RadNet with corresponding orders in SurgiNet to enable tracking:

- CT Nerve Root Inj Cerv/Thor w/Imaging
- FL Epidural Inj Lum/Sac w/Imaging
- Fl Abscess Injection Thru Drainage Cath

CHIO COUNCIL DELIBERATION

Discussed live at the 22 May 2018 CHIO Council Session.

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: This SBAR is more consistent with the category of "Run the Business" type change than the category of true "Enhancement Requests". However, in this time of Cerner Model Standard adherence and tight accounting for IS resources, we are absolutely appreciative of the requestor's efforts to present this SBAR to us. Our only caveat in this case is as follows:

- We will be embarking shortly on a journey in which our entire Radiology orderable catalog is rationalized to Cerner Model Standard
- We will be using a Primary-only approach throughout

As such, we do need to ensure that the nomenclature for any tests to be built do strictly align not just with established local RadNet convention, but also with Cerner Model Standard as a whole. So long as this is followed, we are pleased to approve this request.

20180516 SBAR ABCDEF BUNDLE

SBAR

S: Awakening and breathing coordination, delirium monitoring utilizing validated assessment tool, and early exercise/mobility (ABCDEF) bundle is an evidence based, interprofessional, multicomponent strategy for minimizing sedation exposure, reducing duration of mechanical ventilation and managing intensive care unit (ICU) acquired delirium and weakness (Balas et al, 2013).

B: Sentinel evidence published in 2000 demonstrated a highly statistically significant improvement in decreasing duration of mechanical ventilation ($p=0.004$) and ICU length of stay ($p=0.02$) when daily interruption in sedative infusions were performed (Kress et al, 2000). Since this time, extensive research has expanded upon this initial work to evaluate the implications of ICU care and multiple evidence based strategies have proven successful at mitigating the negative effects that can occur within the ICU. A summary of these evidence based strategies have been incorporated into the ABCDEF bundle by the Society of Critical Care Medicine (SCCM) and are identified as the standard of care to optimize patient outcomes.

In 2015 IU Health Arnett ICU was selected to participate in an 18 month national collaborative study alongside 68 ICUs nationwide through the SCCM. The intent of this ICU Liberation collaborative was to work with hospital teams to optimize pain control, reduce sedation exposure, and decrease time on mechanical ventilation to minimize the risk of permanent impairment and disability that often occurs as a result of ICU care. Through this collaborative, IU Arnett ICU demonstrated a 0.5 day decrease in length of stay, 50% reduction in ventilator days, and 20% reduction in delirium. Many participating ICUs demonstrated similar improvements in outcomes and as a result of the collaborative, the SCCM continues focused efforts to make the bundles a part of the standard of care for all ICUs nationwide. As a result of this recommendation to nationally improve performance with best practice from SCCM, the adoption and integration of the A-F bundles, to be utilized in an interprofessionally, has been identified as a 2018 priority for the IU Health Critical Care Clinical Effectiveness Council for IU Health System ICUs.

A: IU Health Arnett's implementation efforts for full optimization of their efforts were limited by the manual process to daily review performance metrics via the Electronic Medical Record (EMR). The Critical Care Clinical Effectiveness Council has identified the EMR as a barrier to bundle implementation. Components of the bundle are located in various sections within Cerner and are not viewable for review by all members of the care team in

aggregate. (Appendix A). This makes it difficult for providers and staff to develop a clear picture of a patient's progress toward ICU liberation. Fragmented documentation leads to fragmented patient care and sub-optimization of bundle performance.

Cerner Model evaluation is as follows: Cerner Model Standard does not currently exist for the ABCDEF Bundle. Similar Cerner clients are developing a bundle view, some in the form of an M-page, and others in results review. IUH has the opportunity to help develop a future standard tool.

R: Create ABCDEF Bundle view in Flowsheet menu of Results Review that pulls information from the I/O Flowsheet and links to clinical notes. (Appendix B). Results on the section would include:

- A – Pain and RASS score
- B – SAT and SBT assessment results
- C – SAT response of "Sedation Rate" DTA
- D – CAM-ICU assessment results
- E – Mobility level per nurse assessment and Physical Therapy note link
- F – Social Work note link

Current approvals are as follows:

- Critical Care Clinical Effectiveness Team
- System A-F Bundle Sub-Committee
- SVP – Clinical Effectiveness, Dr. Chris Weaver
- President, AHC – Dr. Ryan Nagy
- Medical Director of Quality, AHC – Dr. Jose Azar

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

FURTHER EXPLORE WORKFLOW AND CERNER MODEL.

Commentary by Park: This is a large-scale ask on the part of a Clinical Council, and we are duty bound to respond in the spirit that the request was given. There is only one major caveat here: as senior Cerner executives have fully admitted to us by now, even when no Cerner Model Standard exists **Cerner actually always has a very strong opinion on the matter**. It is unfortunate that oftentimes, this opinion is difficult to find for any given number of reasons. This verdict should not be read as a denial; indeed it is not. It is instead an order to Schaffer to perform an immediate discovery of (a) incipient Cerner Model Standard and (b) Cerner's opinion in this matter.

This also may well be a place where a FHIR-enabled application may serve us better than a Flowsheet view or an MPage view. Cerner is heading down the path of FHIR enablement and CDS Hooks enablement presently, and it would be wise for us – when we attempt to implement a solution – to skate to where the puck is going, as opposed to where the puck currently is. As such, **Schaffer is assigned to expedite the discovery of Cerner innovations in this space, and to shepherd this request to a future Model-compliant conclusion.** We are highly excited for what

the future holds in this very important endeavor, and we see this as being a place in which Clinical Effectiveness and Health Informatics work in lockstep.

20180522 SBAR EPIC ORDERS MODEL REVERSION

SBAR

S: The procedure orders in EPIC need to be updated with each year's changes in CPT codes and their descriptions. Some CPT codes are split and some are combined each year and some are redefined. The staff needs to be able to choose the correct order for the procedure they are going to do. There are notes for the patient and notes for the pre-cert staff attached to these orders.

B: My understanding is that the EPIC orders are connected to Cerner orders and there has to be a correlation between the two. Ryan Meunier, revenue cycle, and the Cerner team has worked to get all of the codes updated. The only thing left to do this year is to rename some orders and create some new ones. There will probably be more changes to come in the fall. The new CPT odes are usually announced sometime in October. Anytime the interventional radiology doctors decide to do a new procedure, new orders need to be created.

A: There are several orders that get confused by the staff. The wrong instructions are given to the patient. The wrong CPT coded are precerted. There is a risk of the charges being denied. There is also a risk to the patient's care. For example, there isn't currently an order for a Ureteral Stent Placement – the staff uses a variety of other orders and then the billing is corrected afterwards. The physicians following this patient might need to know a ureteral stent was placed. An order that is commonly confused because of the wording is an indwelling peritoneal dialysis catheter versus an indwelling pleural drainage catheter. From a charge auditing and revenue standpoint, there is a lot of re-work. If the staff chooses the wrong order those charges have to be credited and manually re-entered. If there isn't an order for the procedure the charges attached to the random order that was chose has to be credited and the correct charges have to be manually charged.

R: I have attached a spreadsheet of the EPIC orders and the corrections that are needed and the reason for the change.

The re-work will be reduced for the charge auditing and pre-cert. Hopefully It will reduce the time the staff spends trying to find the correct order or hanging the order very quickly after the procedure is complete, but before the physician dictates the operative note. It can't be changed after that.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED.

Commentary by Park: This is an incredibly important technical issue to nail down, and will have clinical ramifications. As such, the requestor is ordered to work with Rusty McGill and his team to make sure that all appropriate procedures are followed. Specifically, there will have to be education to clinical staff on this, as this will be a significant change.

2 MAY 2018

20180410 SBAR DOSE RANGE CHECKING FOR PHYSICIANS

SBAR

S: IU Health is planning to implement medication IV pump interoperability for 2018. This project will allow for orders in the Cerner EMR to flow to the pump and eliminate the nurse manually programming each pump.

Given the automation of the order-to-pump-workflow, DRC that presents to the physician has been identified as a clinical needf or additional safety by a clinician workgroup including physicians and pharmacists.

Although this step is not a technical dependency for the pump interoperability, DRC implemented by other Cerner clients and is recommended Model practice for overall medication safety.

B: IU Health has approximately 380 specific medications with dose range checking that currently display to pharmacists. These medications include finite and weight based doses for IV and PO medications, and will appear to the pharmacist in case of error. For example, the current state is:

- Physician prescribes 70mg of morphine IV x 1 for a 7kg patient
- Pharmacist receive Dose Range Check alert for out of range
- Pharmacist contacts physician, corrects dose using verbal order to 0.7 mg of morphine
- Pharmacist dispenses dose.

This current state has opportunities for error in communication and possible delay in care; and the pharmacy is the only one notified in case of error.

A: As mentioned, Cerner Model does not require dose range checking for pump interoperability; however, most Cerner clients using pump interoperability have dose range checking turned on – either before or soon after turning on the pump interoperability. Other tools are Model for medication safety, such as the dose calculator as is currently built, standard rounding and order flexing.

Pharmacy IS has reviewed the 380 medications currently in DRC, and identified the medications which are dismissed without changing the dose (deemed to be nuisance alerts). Based on other client experience, pharmacy IS is removing these and also minimum dosing alerts –performing a clean-up of their dose range checking.

R: The IU Health workgroup and pump steering council recommends dose range checking alerts be presented to the prescribing physician at the time of ordering, instead of after ordering.

This would result in the following workflow:

- Physician prescribes 70 mg of morphine IV x 1 for a 7 kg patient
- Physician receives Dose Range Check alert for out of range and corrects order to 0.7 mg of morphine
- Pharmacist receives Dose Range Checking if dose is not corrected (second check)
- Pharmacist dispenses dose

This future state – by moving the alert to earlier in the process, allowing for correction before the pharmacist receives the order – is aligned with Model and also aligns with clinical decision support principles of 5 rights: right info, right person, right format, right channel, right point in the workflow.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

APPROVED / REVERT TO CERNER MODEL.

Commentary by Park: This is the only IDN I have ever been with that does not have DRC turned on for physicians (it is also worth noting that last week I performed a survey of all the CMIOs at the Healthcare Management Academy Spring 2018 CMIO Forum; **every single one** reported that DRC was on for physicians in their system). Perhaps as a result, we have a DRC buildout that is suboptimal, highly prone to overalerting, and arguably not very useful for pharmacists given the sheer volume received. As such we have a problem: turning on DRC in its current state would be a net negative for physicians; yet not having DRC on at all for physicians is a net negative for patients.

The path advocated by the requestor is correct. **We must turn on DRC for physicians** regardless of the existence or non-existence of an IV pump interoperability project. However, **this will be a major workflow change** and must be treated as amongst the most significant of significant changes. Given the grave implications of this change, **Webber, Schaffer, and Lovely are jointly deputized to (a) drive the project to completion and (b) rigorously evangelize the concept with physician leaders across the ecosystem.** We should not attempt this lightly, and we should not attempt a short timeframe on a project of this type.

20180424 SBAR CAR SEAT EVALUATION

SBAR

S: Car seat evaluations of premature and other high risk infants are still being documented on paper and scanned in to the medical record (evaluations are based on policies SF1.12P and SF 1.13P). Car seat evaluations are completed on all newborns born at less than 37 weeks gestation, newborns less than 2500 grams at the time of testing and newborns that have a history of apnea, bradycardia or oxygen desaturation during their hospitalization based on recommendations of the AAP.

A car seat study band under treatment and procedures was added to Cerner several years ago, but it was not requested or approved by any members of the system wide child passenger safety committee. Unfortunately, it doesn't capture the details of the evaluation accurately and also lacks important information that needs to be documented for liability purposes.

B: Car seat evaluations for premature and other high risk infants have been completed based on policy SF 1.12 P in the NICU, progressive care nursery and mother/baby units at Riley and Methodist Hospitals, as well as other hospitals throughout IU Health for several years based on the best practice recommendation of the AAP, NHTSA, CHA, National Safety Council and Safe Kids Worldwide.

- Safe Transportation of preterm and low birth weight infants at hospital discharge
  Pediatrics Vol. 123 No. 5 May 1, 2009 pp. 1424 -1429
- Hospital Discharge Recommendations for Safe Transportation of Children
  Best Practice Recommendations developed by an Expert Working Group convened by the National Highway Traffic Safety Administration
  March 25, 2014

Policy SF1.13P was approved on 12/31/16 which outlines the process for conducting car seat evaluations at Riley Hospital on units outside of the NICU, Progressive Care Unit and Mother/Baby units at Riley and Methodist Hospitals. Car seat evaluations were conducted on other units throughout the Simon Family Tower from 1/1/17-12/31/17 and changes to the paper documentation forms have been made. We now have the documentation needed based on best practice standards to standardize documentation across the system and eliminate places where duplicate charting has been occurring.

A: Problems include the continued use of documenting on paper and scanning the documentation in the medical record, duplication of some charting, and charting in various places in Cerner rather than having the ability to document everything on a Power Form which saves time. Currently, documentation is required under the treatment and procedure band, patient education band and ad hoc for charging for the evaluation.

R: I recommend building the car seat evaluation documentation in Cerner using a Power Form and including Pt Education/ Child passenger safety for rear facing car seats that are located in the I/O Flowsheet under Patient Education and the documentation for charging for the evaluation which is located under ad hoc/other nursing/ad hoc charges/hospital/unit.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

REVERT TO CERNER MODEL.

Summary of Discussion: This is a very well-written SBAR. The only nit to pick – and it is truly only a nit (which does not truly affect the quality of the SBAR itself) – is that the usage of "I" and other personal pronouns is discouraged in technical documentation like an SBAR form. We congratulate the writer of this SBAR for a job well done in this regard.

This ask is neither a true break fix, nor is it born out of a pressing regulatory concern. As such, it is a lower-priority request during this time of intensive EMR rebuild and renovation. In the same breath, we applaud the spirit in which this SBAR is written: we should always seek to standardize documentation and documentation practices on this and other clinical matters. Finally, we have been made aware that Cerner Model Standard content for car seat evaluations may well already exist.

There were multiple other questions raised by the CHIO Council during this live deliberation; so many, in fact, that we require further collaboration in this space. As such, **Ivory and Webber are assigned by this Council to meet with pediatric leadership for next steps**. We ask that the CHIO Council be kept aware of further developments in this space.

20180424 SBAR ED FOLLOW-UP VISIT

SBAR

S: System Patient Access is implementing the scheduling of follow up appointments in the Emergency room in order to keep patients in the IU Health system after their ED visit. Currently there is no trigger on the FirstNet board to alert SPA that the physician has ordered a follow up visit which happens shortly before discharge. SPA is requesting a trigger be placed on the FirstNet board under the Reg column that would prompt SPA when the physician orders a follow up appointment.

B: The issue was identified by the working group responsible for coming up with the statewide process for implementation.

A: Current state – no trigger.

R: A trigger would allow SPA to quickly identify ED patients that need to schedule a follow-up appointment and allow SPA to schedule the most appointments, positively impacting our "leakage" and revenue.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

DENIED.

Summary of Discussion: The "S" section of this SBAR is well-done, except for the last sentence (which is a recommendation, not a situation). "B", "A", and "R" all need work:

- It would have been very interesting to hear a fuller background on this issue
- The content of "R" needs to be in "A" instead

There is a need to better understand current and proposed clinical processes; these are not outlined within this SBAR. Kumar notes that this SBAR should have started with the Revenue Cycle governance/approval process prior to coming to the CHIO Council at all; the Council agrees with that assessment. Finally, there is the matter of Cerner Model Standard. We are moving toward ED LaunchPoint and away from ED Tracking Boards (as those are being rapidly deprecated by Cerner); we are therefore uncomfortable with making any more changes to entities that will disappear over the course of time.

Therefore, **Kumar is assigned by this Council to meet with Revenue Cycle stakeholders, review the Cerner Model Standard, review existing IU Health site processes, and take the next step in this important workflow process improvement**.

20180424 SBAR HYPOGLYCEMIA ALERTING

SBAR

S: Recognition of serum hypoglycemia values is often delayed. Lab personnel call the nursing unit with critical glucose values of less than 50 mg/dl. The nurse is not notified by lab for hypoglycemia values of 50 mg/dL to 70 mg/dL. Policy for call of critical value by lab to the nursing unit is within 30 minutes. Dependent on time of the specimen draw, and transport to lab for resulting, this value can have delay between time obtained and result noted. Review of labs by the nurse may also be delayed before the hypoglycemia value is recognized. For the patient experiencing hypoglycemia due to nutritional deficit or critical illness the need for intervention is not always recognized and treated in the same manner as iatrogenic hypoglycemia due to insulin or sulfonylurea medications. All this may delay the correction of hypoglycemia for the patient.

There is currently nothing in place to alert nursing immediately of a serum hypoglycemic result.

B: Spontaneous hypoglycemia due to nutritional deficit and critical illness is often found during chart reviews performed by the Inpatient Glucose Management Team. At times this also found to be unaddressed. A publication from 2015 using our critical hypoglycemia data revealed ~ 25% of all hypoglycemia was spontaneous.

- Patients at risk:
    - NPO without glucose source or adequate glucose source
    - Diet order with poor intake
    - Renal or liver failure
    - Critically ill
- Complicating issues:
    - Unable to begin nutrition due to level of critical illness
    - Dextrose IVF an issue due to fluid balance issues

A:

- Team collaboration to address this issue:

1. Nursing
2. Risk
3. Lab
4. Cerner
5. Inpatient Glucose Management Team

- Strategies investigated without solution to date:
    - Development of protocol for Accu-Cheks for NPO patients not on insulin
    - Lab call to unit for serum 50 mg/dL to 70 mg/dL
    - Use of Malnutrition Screening Tool score
    - Cisco phones-send alert to phone
    - Pager use discouraged at this time
    - E-White boards
        - Not all units have them
        - Some not in plain view from the nurses station
    - Dashboard
        - Add 70 or less to Med-Surg nursing dashboard
    - CareCompass
        - Not able to use for this need

    - Possibilities this might be an option in the future but to date no
- No Cerner Model Standard around this clinical need for nurse notification

R: Cerner automatic orders/nurse task:

- WHEN serum glucose results of 70 mg/dL or less, query for hypoglycemia treatment orders.
- IF no treatment orders are found,
- THEN auto generation of order/task that states: "Serum Hypoglycemia Result Recorded. Immediate action required. Refer to Hypoglycemia Protocol for treatment and resolution. Contact MD to inform." Link to Hypoglycemia Protocol would be imbedded in this order/task.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

DENIED.

Summary of Discussion: This is a well-written SBAR. It is due to the thoroughness and the thoughtfulness of this document that we were able to come to an unequivocal conclusion. Unfortunately, the performance characteristics of the proposed rule are poor enough that we cannot approve the request.

Ivory points out that there are multiple interesting issues of workflow in this space, and the Council agrees with Ivory that the ultimate solution to this issue will be driven through workflow, not through the EMR. Furthermore, there actually **is** an exact Cerner Model Standard for nursing critical lab values alerting – driven through CareCompass and through a secure text messaging platform (usually Cerner CareAware Connect). While we do not have CareAware Connect, we are indeed working through our current secure text messaging platform (DiagNotes) to make such alerting a reality in the near future.

Therefore, **Ivory is assigned by this Council to lead this matter forward on a systemwide basis**. We understand completely the requestor's concerns, and we will not let this important clinical workflow matter drop. It is simply our judgment that the solution does not lie primarily in the space of the EMR.

20180424 SBAR INSURANCE, UTILIZATION, CARE MANAGEMENT

SBAR

S: The Utilization Management and Care Management departments (Integrated Care Management) are unable to view historical insurance information on a patient's visit. This is due to the loss of registration data within Access Management when Insurance Information is updated. This situation creates great risk for the organization with denied days for lack of clinical data and the notice of admission not being executed in a timely manner.

B: In mid-January 2018, the Cerner Acute Case Management Model Solution went live for Integrated Care Management and Utilization Management programs across all IUH facilities. Prior to this transition, documentation related to payer contact (notice of admission, initial authorization, continued stay authorization numbers, dates, and payer communication) was completed in MCCM. Shortly after transition to Cerner, users

reported issues with documentation disappearing when updates were made to the insurance information in Access Management.

A: Example of Issue: A patient is registered on admission with Insurance "Anthem"; the payer is notified and details related to authorization for the stay and next review date are entered. On day #3, it is discovered that the patient's insurance "Anthem" is actually a secondary payer and a primary payer has been identified. Access Management is updated in the Insurance 1 section for the new primary insurance "Cigna" and "Anthem" is entered into the Insurance 2 section. All documentation completed on the initial admission for Insurance 1 "Anthem" is now no longer visible or retrievable by the end users. RCIS and Cerner ACM experts confirm this occurring. This information must be retained historically in order to continue daily business operations effectively.

Current State: Users must copy and paste all of their documentation to a clinical note for reference. This is redundant and time consuming. It negatively impacts worklists that were designed to alert users when the next review date was due, as hundreds of cases are processed daily.

Statewide Approval: Approval emails received from ICM Leadership statewide IUH facilities.

R: There is no Cerner Standard Model available that addresses this situation. Request modifications to existing "Insurance Summary" band to add Insurance History. This will allow for timely submission to payers and avoid denials or delays in reimbursement to IU Health (screen shot attached). With previous CRC approval, CERT build was completed with successful testing. The total work effort with coding and testing was 11 hours. During QA, the Change Request was pushed back to Risk Assessment pending submission of the SBAR for CHIO Council governance.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

FURTHER EXPLORE WORKFLOW AND CERNER MODEL.

Summary of Discussion: This a comprehensive and well-written SBAR. We congratulate the requestor for the clear effort and thought put into this document. This is a complicated issue with many nuances and our response must therefore be nuanced.

We recognize that there is a need here that is not being met. We also recognize that this request is a custom enhancement to a custom EMR component to begin with; in other words:

- Making this change would likely have a limited impact on the Cerner Model Standard portions of our ecosystem.
- Yet because this change is custom, it would (almost certainly) be wiped out at some point in the future with an implementation of Cerner Model Standard in this space.

That is a dilemma that requires much thoughtfulness. As such, we opened a line of inquiry to the Cerner Model Experience as well as to our existing embedded Cerner resources. We have learned the following:

- There actually is a Cerner Model Standard workflow for the exact "Example of Issue" noted in the SBAR above.
    - In cases where Payor A is documented as the primary and, a few days later, it is learned that Payor B is actually the primary and Payor A is the secondary, **enter Payor B as the secondary and then perform a Swap; this retains all prior information**.
    - If this actually works the way that Cerner states, this is the workflow we should adopt for this particular issue.
    - This answer was provided by Anne Hinson and Abby Doyle from Cerner; further follow-up questions should go to them.
- The issue stated by the SBAR is merely a single example of what is likely an entire class of issues; although **this particular issue** appears solved by the above workflow, there will be other areas in which no solution may exist.
- The model for ACM and UM was developed at BayCare – an advanced Cerner-deploying IDN that is also the origin of our model for Infusion Management build and deployment. It would behoove us to have intensive conversations with their informatics group, especially since a relationship with them already exists (due to the ties we have forged on the Infusion Management side of the house).
- Cerner is willing to continue to explore these areas together. Given the microservices-based thin platform approach that Cerner is now aggressively taking, we must be especially careful about what we do and do not allow in terms of system customization.

This Council, given all of the above, is not willing to approve the proposed change at this time. The need for further discussion and exploration is evident. As such, **Park is assigned by this Council to interface with ACM and UM stakeholders to continue this investigation and drive toward a satisfactory conclusion**.

20180424 SBAR MADUPU COT SMART TEMPLATE

SBAR

S: Dr. Ashwin Madupu would like to be able to include the information from the CVR that the MA's fill out that pertains to Pain Assessment, COT info as well as the ROS directly into his documentation in Dyn Doc. Currently he has a smart template that allows the MA's ROS from the CVR to populate and he would like to have a template that will pull the other info in as well.

B: I attempted to find a smart template to pull in the information he wanted using an autotext and found there are 2 listed that he is interested in, but they will not load and I tried to see what they will do on a test patient and I get an error script.

A: This particular provider needs to include very detailed information in his notes, given that he is a pain management provider. He must be able to provide documentation that shows the progression of the therapy and whether or not the patient is seeing improvement. His practice is thinking of using scribes to assist him in his documentation so he can keep up with his current volume of patients. He feels confident that if he can bring in the info from the CVR that the MA's fill out regarding pain and description he can avoid the scribes and maintain his efficiency in the clinic.

R: Create a smart template that will bring in COT pain score and pain description/ assessment from the Pain Assessment Power Form in the CVR.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

DENIED.

Summary of Discussion: A guiding principle of the Cerner Model Standard is that individual clinician requests cannot be honored if they are truly specific to an individual. This SBAR is a good example of such a request. It would have resulted in a summary veto had it not been brought for live discussion at the 24 April 2018 CHIO Council Session.

We chose to look at this request, then, as if it had not come from a single clinician. In that light, there may well be a valid request here but it appears that the exploration of current Cerner functionality may not be complete. There certainly are Smart Templates that pull information like this that are proven to function. It may well be that the only thing that is required here is better education of what is and is not available.

If there is a true gap in function, the appropriate governance authority lies with Saysana and her COT Documentation group. Follow-up with that group is required to ensure that work aligns with the Cerner Model Standard anyway, so we are happy to take this matter to Saysana and her team. Teague notes that there is an existing solution for this request, and signals willingness to help educate. Lovely notes a willingness to follow up with the requestor to see if the solution mentioned by Teague would work.

As such, **Lovely is assigned by this Council to interface with the requestor to ascertain next best steps**.

20180424 SBAR MEDICATION INTAKE SEGMENT

SBAR

S: The Ambulatory Surgery Centers (ASCs) document separately payable single-dose vial medications on the Implant Record of the M-25 IntraOp Record to capture CMS requirements for reporting the JW Modifier.

B: “Effective January 1, 2017, providers and suppliers are required to report the JW modifier on Part B drug claims for discarded drugs and biologicals. Also, providers and suppliers must document the amount of discarded drugs or biologicals in Medicare beneficiaries’ medical records” (Centers for Medicare and Medicaid Services, 2006).

The JW Modifier is suspected to be used most often in physician offices, hospital outpatient settings, and Critical Access Hospitals (Centers for Medicare and Medicaid Services, 2006). Hospital inpatient admissions are excluded due to the Inpatient Prospective Payment System(Centers for Medicare and Medicaid Services, 2006).

A: The Medication Intake Segment on the M-25 IntraOp Record does not have the necessary fields to document the required amounts. Therefore, the ASCs utilize the Implant Record to document the amount of medication given in the “Quantity” field and the amount of medication wasted in the “How many of this item NOT implanted?” field.

Cerner Model Standard for IntraOp medication administration is scanning or documenting via the MAR. The MAR does not have a “waste” field available for documentation.

R: Add two new fields, “Dose Given” and “Dose Wasted” to the Medication Intake Segment on the M-25 IntraOp Record. With this change, the ASCs will align with the rest of IUH and standardize IntraOp medication documentation on the Medication Intake Segment. In turn, the patient’s IntraOp Record will accurately depict the care he/she received, as well as ensure the Implant Record is properly used to meet Meaningful Use measures.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

PROVISIONALLY APPROVED / REVERT TO CERNER MODEL.

Summary of Discussion: This is a very well-written SBAR; it may well be the best-written SBAR in this current batch of submissions. The need is unequivocal, and the SBAR nicely highlights the regulatory miss we currently have. We clearly must take action in this area.

Our current Cerner build appears to not align with the Cerner Model Standard. Long-term, our clear strategy is to move to the Cerner Model Standard in all things, including in matters like these. A re-evaluation of this area of build and the associated clinical processes is in order. We recognize, however, that:

- There is a clear and present regulatory need.
- A project to rationalize this area to Cerner Model Standard will take time and much effort.
- The proposed change would actually drive the ASCs to standardize IntraOp medication documentation on the Medication Intake Segment.

As such, we **PROVISIONALLY APPROVE** the proposed change, but also order a comprehensive look at this area of the build to determine best steps toward Cerner Model Standard alignment.

20180424 SBAR MUSIC THERAPY CONSULT REQUIRED FIELDS

SBAR

S: Music therapy referrals that are placed electronically often provide no information regarding consult reasons, which can negatively impact patients by delaying the delivery of music therapy services.

B: Music therapists can be consulted for a variety of needs, including new or extended medical stressors, physical symptom management, emotional distress, need for stimulation/motivation, and end of life support. The referral reasons are necessary to determine how patients are prioritized, and are essential to the development of treatment plans.

A: The time music therapists spend trying to discover the referral reasons could be better spent providing patient care. We need to require referral reasons in the electronic consult process, in a way that is easy for consulting physicians to use.

R: We recommend requiring physicians to choose from a list of common music therapy referral reasons when placing a consult. This will improve and speed up communication about patient needs. As a result, patients and families will have better access to prompt and effective treatment designed for them.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

REVERT TO CERNER MODEL.

Summary of Discussion: Even though we have recently brought our consult orderables much more in line with Cerner Model Standard than before, we are aware that there is still some amount of variability in required fields / free text fields. We also know from the medical informatics literature that there are times when making a field required leads not to the entry of the correct data, but to the phenomenon of "garbage data". We must thus tread with caution whenever it is that we are introducing required fields into any portion of the EMR. Finally, this change is neither regulatory, nor is it a break-fix. This makes it a low-priority request (as far as its **specifics** are concerned; however, the **gestalt** of the SBAR is worthy of further discussion below).

This is therefore an opportunity for us to examine the sum total of all consult orderables. We are well aware that the Cerner Model Standard is not a panacea, and that there are always going to be details left to the individual IDN to determine. It has been this Council's experience that partnering with Cerner to fully explore spaces like this has resulted in good and sustainable outcomes.

20180424 SBAR REMOVAL OF DISCONTINUED DATE-TIME DTA

SBAR

S: On a regular basis, the Clinical Leadership Organizer (CLO) is showing that staff is not documenting discontinuing invasive devices appropriately for them to clear from CLO causing charge nurses to spend a great deal of time following up on getting the documentation corrected so that CLO would show accurate information.

B: Prior to CLO, nursing staff documented discontinuing a line, Foley, drain/tube, etc. by charting the activity "Assessment" and the DTAs for discontinuation date/time, and reason and then inactivating the device in IFlow.

With the implementation of CLO, for the discontinued line/drain/tube to be removed from CLO, the nurse must document "Discontinued" in the Activity DTA. Training with nursing staff have occurred a number of times.

Using the "Discontinued" activity is not happening consistently. Reviews of charting, for the most part, show that nursing is still using the activity "Assessment" and the discontinue date/time and reasons or just documenting the discontinue date/time and reason without the activity being documented (Activity is not a required field).

A: Charge nurses are spending a lot of time either correcting or having the patient's nurse correcting the documentation related to discontinuing a line/drain/tube.

Cerner Model is to remove the Discontinued Date/Time DTA due to duplicity. Cerner Model uses the Date/Time of the column in IFlow as the date/time the device was discontinued. Activity is also a conditional DTA. This is done so that when the "Discontinued" activity is documented, the reason for discontinuing DTAs open for documenting.

R: Move to Cerner Model, removing the Discontinued Date/Time DTA from the line/drain/tube sections in IFlow. Make the Activity DTA conditional so that when choosing "Discontinued," the reason for discontinuation DTAs will open to be documented.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

REVERT TO CERNER MODEL / HAND OFF TO NURSING UPLIFT CLO WORKGROUP.

Summary of Discussion: This is a well-written SBAR. We applaud the requestor for wishing to aggressively move to Cerner Model Standard. This is in keeping with the spirit of the currently ongoing Nursing Uplift project. It is worth mentioning that the Nursing Uplift project does have a CLO Workgroup. As such, we **APPROVE** this reversion to Cerner Model Standard, but **under the auspices of the Nursing Uplift CLO Workgroup**.

20180424 SBAR UPTODATE UNION IMPLEMENTATION

SBAR

S: Union has licensed Up to Date, an evidence-based, physician clinical decision support resource as standard at IU Health. Request to add this to Union positions.

B: Union purchased licenses 2/1/18. As of April 9th, the request for the SBAR was requested to add this to Union positons for 45 hours. (This was for 180 positions. The request modified for 127 positions).

A: Without this build, Union will not be able to fully implement the use of the license, without touching each individual user. The creating the link individually is not endorsed by Union Clinical Informatics, and does meet standard.

R: Request to Add Up to Date to Union Positions.

CHIO COUNCIL DELIBERATION

Discussed live at the 24 April 2018 CHIO Council Session.

VERDICT

APPROVED.

Summary of Discussion: This is much like a previous SBAR on Injectable Promethazine – Union is in the unique situation of being a client, not a member hospital of IU Health. Doing this would simply give our Union providers

parity with our IUH providers, as we already have UpToDate on the IUH side. This is a very reasonable request and we are pleased to give our approval.

20180502 DIAGNOSIS PROPOGATION FOR POWERPLANS

SBAR

S:

- There is no standard 'location' in Cerner (in provider workflows for order entry or documentation) for capture of diagnosis associated with infusions. It is often missing and can be inconsistent with the diagnosis used in prior authorization for those services.
- This results in:
    - Rework for the nursing staff, the authorization staffand the coding staff who expend time attempting to find the diagnosis and
    - Risk denials and write-offs for these high cost procedures

B:

- Diagnosis for services MUST be:
    - Documented by the ordering provider
    - Associated with each infusion encounter billed for the patient
    - Support the authorization of services
- In current state:
    - RN attempts to identify the ICD10 from prior documentation by provider
    - RN sends Message (MC in Cerner) to authorization team (the Message does not associate the Dx with the Infusion Order)

A:

- Cerner Model recommendation is to use 'Diagnosis Propagation' functionality in PowerPlans and to select "Allow Diagnosis Propagation"
- This allows association of the Diagnosis for all subsequent infusion sub-phases resulting in (1) provider-entered diagnosis, (2) a standard 'location'for the Diagnosis and (3) association of the Diagnosis with each future Infusion encounter

R:

- Pilot use of "Diagnosis Propagation" for a limited number of Infusion PowerPlans
- Leverage Physician Champion to help with effort: Determine Pilot goals, validate current/ future state workflows, foster adoption, and elicit feedback
- Train the Authorization and Coding team members to efficiently locate the Diagnosis
- Pilot findings to inform ability to deploy to all Infusion PowerPlans
- Based on outcome, system may further spread this functionality to other PowerPlans beyond the Infusion Powerplan

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: This provides a wonderful opportunity to hard revert to Cerner Model Standard in this space (all PowerPlans, not just Infusions). It is understood that there are many moving parts. **We absolutely must do Cerner Model Standard** here for the reasons mentioned by the requestor, and for many other reasons beside. However, the resources that would be heavily used in this arena are also used in the ongoing Cerner Model Charging pilot project. The Cerner Model Charging pilot project is of higher priority to almost all others at this time.

As such, I order that work on this project be **deferred** until resources are freed up to address this. This standpoint may seem extreme – but such is the importance of the Cerner Model Charging project.

18 APRIL 2018

20171228 SBAR NEDOCS BLOOMINGTON ED

SBAR

S: NEDOCS in its current format does not provide a true representation of the bed availability for the ED in Bloomington.

B: We are attempting to use the tools that are provided and NEDOCS needs to be adjusted to mirror our room availability.

A: Team 3 is only open and staffed from 11a-11p. Additionally, all hall beds should b removed from count as they are for overflow only and should not be counted in normal bed count.

R: We would like our total bed count to be reduced to 32 and then flex the bed count to mirror Team 3 hours of operation.

CHIO COUNCIL DELIBERATION

Veto: Park, joined by Schaffer

VERDICT

VETOED.

Commentary by Park: NEDOCS happens to be a standard model that one cannot adjust simply because one thinks that it is not reflective of one's situation. Furthermore, it would set a dangerous precedent to allow individual facilities to claim that they are reporting on a single uniform metric when in actuality, the metric is neither single nor uniform. On the note of why an SBAR submitted in December 2017 is being verdicted out now – the CHIO Council apologizes for how this SBAR somehow fell through the cracks. This should not have occurred, and we have revamped our intake process in light of this miss.

Commentary by Schaffer: This request is therefore denied. It is better to have a single imperfect yardstick then to have a hundred "more perfect" yardsticks – for when you embark on the latter, you now have no source of truth at all.

20180307 SBAR BANNER BAR LIKERT SCALE

SBAR

S: Current Banner Bar in Cerner does not align with Cerner Model Standard and has resulted in negative system performance.

B: The Banner Bar is for information that needs to be accessed quickly for all patients and that is not available easily elsewhere in the chart. Current state is not in 100% compliance with that theory, as historically requests were vetted individually without understanding global impact to the system.

A: IUH Banner Bar is not aligned with Model Standard and currently has multiple custom fields which further impact system performance. As a system, we are not using the full capabilities of the Banner Bar. A Banner Bar Workgroup was chartered to review a transition from current state to Model Standard. We have done a data analysis showing differences between current state and Model Standard, with a Likert Scale used as prioritization.

R: Align with Cerner Model Standard. If there is a need to differ, recommend that Likert Scale be used to evaluate value versus need.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: There was an in-person CHIO Council meeting that made this topic the focus. A lively debate was had, and it became very clear that there were multiple entrenched positions on individual elements of the Banner Bar today. Since then, however, it has become clear that **Cerner is much farther down its strategy of microservices-based EMR modularization** than we had initially understood. Dynamic Banner Bars will become possible in the near future, but only if we revert to a completely standard Banner Bar to begin with. Indeed, we will be unable to take upgrade packages related to this unless we perform this reversion.

This reversion will have to be done carefully. For instance, the PCP field is not within Cerner Model Standard; neither is the Resident PCP field. The PCP field is currently displayed in the Banner Bar, and the Resident PCP field is not. There are very good reasons to have the information (PCP, Resident PCP), but the reason why we have traditionally struggled with this is that Cerner Model Standard dictates usage of a component known as Care Teams that we have never enabled. Similarly, our Code Status field is custom and polluted because we are not using the underlying Cerner Model Standard functionality.

As such, we are going to deliberately embark on a total reversion to Cerner Model Standard in this space. We will do so over the period of several months, and with full communication and education throughout. This will allow us to take leading-edge releases in the Banner Bar space, significantly accelerating the state of development and deployment of dynamic technologies in this space.

20180307 SBAR AMB BLOOD PLANS

SBAR

S: The schedulers can't see the blood products orders of the AMB Blood Plan cycle or the AMB Blood Plan Regimen. They are in the positions of REG:EMR and REG: EMR With MC.

B: The schedulers are responsible for scheduling the blood transfusions for the hematology/oncology patients in the facility-based 5 North Outpatient Infusion Center. They need to see how many units of blood product were ordered to correspond with the duration of the appointment. The oncology provider will choose either a single cycle of AMB Blood Plan or will choose a Regimen which allows multiple cycles to be chosen when the needs arise. The cycle plan is left in a planned state. The lab and blood bank orders are in the first phase. Lab completes their order and blood bank receives their order. The second phase consists of the blood admin orders for the nurses to complete when the patient arrives. The oncology provider will comment in the AMB follow-up appointment order to schedule the blood transfusion.

A: When we went live with PowerChart Oncology in June 2017, schedulers were able to view the orders of the plan. Since then it has not been an automatic view. I have checked all of the preference settings and filters. I was able to get the view back for a while by doing this. Now, they don't have all the privileges at all. This has been a source of frustration for the schedulers as well as oncology as they have to send the detailed order via fax to the scheduler. The schedulers can see discontinued blood orders but not planned.

R: I placed a helpdesk ticket to Core Events. Jim Coblentz placed an AMB blood plan order and then logged in as a REG EMR person. He confirmed this position as well as REG EMR with Message Center does not have the privilege. I was told that I would have to do this request as it is an enhancement. Please consider honoring my request as it does impact patient care and staff time.

CHIO COUNCIL DELIBERATION

Speaking FOR: Oates

Speaking AGAINST: None

Speaking TO: Buckwalter, Kumar, Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Buckwalter: Is this a break-fix of a capability that existed previously or did the change occur because of regression to Cerner Model Standard? It seems that this is a potential safety issue if we are relying on faxes to initiate orders. We need a better solution. It is unclear to me that the proposed solution fits the model ideal.

Commentary by Kumar: On the one hand this sounds like a break-fix, at least as it is presented in the SBAR. The issue here is why do we have our schedulers (non-clinical) look at a Blood Product order and related volume of the Blood Product to determine the duration of an appointment for scheduling? Is there not a better way to define appointment duration as a by-product of the order entry? If not, and there is no Model to guide us here, we do need to proceed with this "fix" as it is adversely impacting patient care.

Commentary by Oates: Agree with Kumar.

Commentary by Park: We first need to address the fact that this is a very poorly written SBAR. The A and R sections in specific are worth calling out, as they contribute more to confusion than to clarity. The A section reads like a list of things that the requestor has tried; this is not a true assessment. No formal recommendation is

actually made in the R section. From this point forward, any SBAR written in this fashion will be summarily rejected.

Cerner Model Standard actually dictates that schedulers be allowed to see order detail for future orders. This is part and parcel of the Cerner Model Standard recommendation for enabling Orders to Scheduling, which is the ultimate solution to this problem. Therefore, while I give approval for the appropriate preference to be flipped here, this is not the end state. We must begin marching toward Orders to Scheduling; indeed, such efforts are already underway.

20180326 SBAR CAM ICU RISK ASSESSMENT

SBAR

S: Currently, IU Health utilizes the evidence-based CAM-ICU Risk Assessment for identifying the presence of delirium. The CAM-ICU Risk Assessment is to be completed on admission, once per shift or with any change in mental status. When completed accurately, the score leads to prompt intervention by the medical team, decreasing the likelihood of developing delirium. In its current state, assessments are often left incomplete and/or what has been completed is not supported by chart details; for example, the RASS score aligning with an acute change or fluctuation in mental status. If the score is inaccurate, delirium may go unrecognized, delaying needed interventions, extending the patient's stay and affecting patient outcomes.

Additionally, the CAM-ICU Risk Assessment is a component in the ABCDEF Bundle for reducing duration of mechanical ventilation and managing ICU acquired delirium and weakness. The Critical Care Clinical Council has approved moving forward with establishing the ABCDEF Bundle for Critical Care system-wide.

B: Currently, conditionality does not exist within the build; all DTAs in the assessment can be documented, leading to inaccurate and incomplete scores. Inaccurate/incomplete scores slow the care of the patient and do not allow for proper notification of the care team to address patient condition.

A: Cerner Model Standard states that conditionality in IFlow is the appropriate solution. By adding conditionality to the existing DTAs, nursing staff will properly utilize the evidence based tool, driving the decision making process, leading to accurate, actionable scores.

R: Add conditionaity to the CAM-ICU Risk Assessment DTAs, allowing for accurate documentation of patient condition.

CHIO COUNCIL DELIBERATION

Veto: Park, joined by Ivory

VERDICT

VETOED.

Commentary by Park: This is a well-written SBAR, except for the fact that the S and B sections should arguably be flipped in content. We also appreciate the amount of work the requestor went through in diagramming exactly the desired design changes. This SBAR took many weeks to deliberate through simply because we were not clear

as to what the Cerner Model Standard is in this space. Indeed, it is this SBAR that is almost solely responsible for the delay in this month's edition of the *Annals*.

As it turns out, not only is conditionality not part of the Cerner Model Standard for this form, our own version of the form is far from Cerner Model Standard to begin with. An examination of Open House supports this line of reasoning as well. We have systematically reached out to other academic IDNs, and it is clear that we absolutely need to stay within Model Standard guidelines in this and other pieces of nursing documentation.

The following statement contains a logical fallacy:

> *By adding conditionality to the existing DTAs, nursing staff will properly utilize the evidence based tool, driving the decision making process, leading to accurate, actionable scores.*

Adding conditionality to a form does not compel the user to properly utilize it; similarly, adding an alert does not compel a physician to pay any attention to it. If anything, our IDN's entirely quixotic exercise of having 967 required DTAs in the nursing intake assessment shows that such interventions lead to the entry of garbage data, not the creation of accurate or actionable knowledge. If the desired end result is having an accurate, actionable CAM-ICU score, the path forward will be found in nursing workflow, not in the EMR.

Commentary by Ivory: Agree with staying within Model and exploring educational solutions that can improve practice while we determine the future plans for incorporating the CAM assessment into Model. I do agree the tool can be helpful as part of operationalizing the ABCDEF Bundle but we can improve practice while further investigation occurs.

20180326 SBAR ESS TEMPLATE SLEEP MEDICINE

SBAR

S: The IUHP Sleep Medicine program would like to request a new template to be embedded in Cerner for providers and staff. The template is the Epworth Sleepiness Scale (ESS). This scale is a diagnostic tool widely used and accepted in the field of sleep medicine as a subjective measure of the patient's sleepiness and is a key decision-making tool for the physician determining a plan of care. The current process is a manual form.

B: The guidelines for accreditation for the IUH Sleep Lab have changed. One of the new compliance mandates is a quality metrics from the clinic as well as the lab. Not having this quality metrics could result in the loss of revenue. Having the ability to automate the process as much as possible will assist us in our efforts to comply with this new mandate. We plan to use the score from the template in a customized report. The current process is to have the patient complete a form manually. Not every patient complies with this or completes the form fully. Automating the process will minimize the instances of incomplete information or no information at all.

A:

1. Automating the process will reduce the possibility of errors.
2. Having a template will allow for consistency in collecting data.
3. Having a template will minimize the instances of incomplete or missing information.
4. Automating this process will help with the paper reduction initiative.

R: Create a template that is designed by the Medical Director of the Sleep Medicine program and Lab that is compliant with the accreditation guidelines.

CHIO COUNCIL DELIBERATION

Speaking FOR: Teague, Buckwalter in part, Webber in part, Schaffer

Speaking AGAINST: Park in part

Speaking TO: Buckwalter in part, Busch, Oates, Park in part, Webber in part

VERDICT

ASK FOR COPYRIGHT PERMISSION BEFORE ANY FURTHER ACTION.

Commentary by Teague: I'm a huge proponent of automating as much as possible. This Epworth Sleepiness Scale is, as stated, very widely accepted and I would argue that PCPs will also utilize this scale as we are risk stratifying patients who should have sleep studies performed. Having this document embedded in Cerner so that we can easily access it and then find the result of past tests would be useful. I vote yes for this as it would be, I think largely adopted if PCPs and Sleep Physicians know where to find it and how to access it.

Commentary by Buckwalter: Based on the SBAR, a better process is needed to ensure compliance with accreditation guidelines. This represents an regulatory change that falls under the agreed-upon reasons to approve. My remaining questions:

1. Can we create a template that contains discrete elements facilitating an automatic reporting process?
2. Does the clinic need to examine its workflow process to ensure that a new template will be used as intended?

Commentary by Busch: While technically this is not Model provided content (probably due to a licensing constraint), clients who wish to use this scale are advised to use a PowerForm. I was able to track down a domain this is built out in and I have a screenshot of example build. It is recommended however to include reference text with attribution to the source of the scale.

Commentary by Oates: ESS is clinically useful. However, I do not see how it is to be "automated" in the request.

Commentary by Schaffer: Support. This is similar to other scores we have built.

Commentary by Webber: Support PowerForm development. But author also needs to clarify: how many locations and scale of use (is it only sleep lab, or is it completed in a primary care office as screening?); and also, would "automating" it mean would the form be completed by patient in a Clipboard-type scenario, or by medical staff asking patient questions? Finally, authors should clarify, do they have permission from the ESS copyright holders to build this out? The copyright permissions are a constant challenge as we build screening tools out.

Commentary by Park: ESS is indeed protected by copyright, and utilization of this score in an EMR without express written permission of the copyright holders constitutes copyright infringement. If a suit were brought against us, we would lose hands down in that scenario. The burden is on the requestor, therefore, to secure written permission from **all** of the copyright holders before anything is to be built.

This SBAR highlights a common logical fallacy in EMR design. Just because something is built into an EMR does not automate it to any degree. Any attempt to "automate" by making the data entry uniformly required results in junk data that cannot be used in medical decision making. The issue highlighted in the B section of the SBAR is a clinical workflow issue with a clinical workflow solution, not an EMR solution. Therefore, the verdict is as follows:

1. Requestor is to bring back a signed affidavit of permission to reproduce from the copyright holders of the ESS.
2. Once this occurs, we are to build the ESS out as a PowerForm, and not as a document. This will be done not as designed by a single clinician group at IU Health, but as designed by Cerner Model Standard best practices.
3. Requestor and other groups are to leverage the Enterprise Data Warehouse for all reporting purposes; a request for a custom Cerner report will not be granted.

20180326 SBAR HAMILTON VENT UPGRADE

SBAR

S: The Hamilton G5 ventilator currently used by Riley NICU downtown and North (and being purchased as IUH ventilator of choice for all inpatient bedside care) recently underwent a software upgrade by the manufacturer.

B: The ventilator has been used in our NICU population for approximately 3 years and was added to the RT Cerner documentation standards at that time. All parameter options were built into the IFlowsheet to accommodate detailed and accurate charting.

A: Without addition of the requested parameter, RCP team members will not be able to accurately document the new alarm setting.

R: Respiratory Care is requesting the addition of this alarm parameter to meet the needs of documentation of set ventilator alarms. This would be a permanent change to the Resp Care IFlowsheet.

CHIO COUNCIL DELIBERATION

Speaking FOR: Buckwalter, Teague, Schaffer, Webber

Speaking AGAINST: None

Speaking TO: Park

VERDICT

APPROVED.

Commentary by Buckwalter: This looks like a break-fix issue related to the software upgrade. Approval recommended. Question: is there a process or should there be a process to vet software upgrades for systemwide equipment such as this ventilator? If so, should future issues like this circumvent this group and just be part of the software upgrade process?

Commentary by Teague: Agree with Buckwalter. Don't know the specifics of this, but if needed for a software upgrade we should support and approve.

Commentary by Schaffer: It sounds appropriate to add this DTA to the alarms.

Commentary by Webber: Agree. Agree also with Teague and Buckwalter – a follow-up discussion with RT more systemwide would be helpful for ventilator upgrades. Routine upgrades are handled through CE, but as I read it this upgrade happened to include a clinical EMR impact, which is likely why the requestor submitted this SBAR to us.

Commentary by Park: The requestor was absolutely correct to bring this matter to our attention. She is to be commended for doing so.

20180326 SBAR INJECTABLE PROMETHAZINE

SBAR

S: The goal of this best practice is to eliminate the risk of serious tissue injuries and amputations from the inadvertent arterial injection or IV extravasation of injectable promethazine.

B: Union Hospital Clinton had previously had a patient that experienced limb loss due to intravenous administration of injectable promethazine.

A: Due to ISMP recommendations and availability of comparable and affordable alternatives Union Hospital feels this safety initative is very important and will help prevent future safety events for our patients. We feel we should be able to meet all the ISMP Best Practice 13 recommendations with help from IUH building a therapeutic sub for Union Hospitals.

R:

1. Remove injectable promethazine from all areas of the hospital including the pharmacy.
    a. Approved via P&T, MEC, and COW February 2018 at Union Hospital.
2. Classify injectable promethazine as a non-stocked, non-formulary medication.
    a. Union can change in MedsManager.
3. Implement a medical staff approved automatic therapeutic substitution policy to convert all injectable promethazine orders to another antiemetic.
4. Remove injectable promethazine from all computerized medication order screens and from all order sets and protocols.
    a. If IUH builds therapeutic substitution for Union Hospitals this should cover this section until/if IUH decides to follow ISMP Best Practice 13.

CHIO COUNCIL DELIBERATION

Speaking FOR: Schaffer, Park

Speaking AGAINST: None

Speaking TO: Teague, Buckwalter, Webber

VERDICT

APPROVED.

Commentary by Teague: My lack of knowledge of how Cerner is built on the back end will be evident in this commentary. I think that building an automatic conversion from promethazine to ondansetron is a little risky. Some patients can't have ondansetron due to allergy or medication interaction and thus need promethazine. I think removing the IM injections as a route of administration is a good idea, but I don't know if this administration route is utilized in the ER. If we remove the IM injections, would this result in removing it from **everywhere** or could we limit this just to Union Hospital? Could we eliminate it from only inpatient use to not result in removing it from ER use? There would be a potential for significant downstream effect if we just removed it or allowed for an automatic substitution. I do agree that it should be removed from inpatient order sets. Could we, instead of eliminating it, make IM promethazine inpatient orders be accompanied by an alert to bring attention to this? I wonder how many times it is accidentally ordered IM when it was meant to be ordered IV.

Commentary by Buckwalter: I agree with Teague that an automatic substitution may be problematic in case of allergy. We may also promote the law of unintended consequences if we eliminate the injectable form. I think we want to pull an knowledgeable pharmacy representative into this discussion to help guide us further. Furthermore, I don't think this kind of issue lends itself well to this type of interaction.

Commentary by Schaffer: I support removing injectable promethazine from the formulary altogether. There are other medications that have better efficacy and side effect profiles than promethazine that do not carry the same risk. True allergy to metoclopramide, prochlorperazine, and ondansetron are rare. Most report akathisia with the former two and promethazine carries the same side effect.

Commentary by Webber: I suggest that the CC on this important decision for clinical best practice is the IUH systemwide medication quality and safety council.

Commentary by Park: This request is summarily approved. To treat a legitimate request from our EMR client (as IUH is Union's EMR vendor; Union is not a part of IUH) as if it came from one of our internal sites is wildly inappropriate. **The CC on this issue has spoken, and it is the CC of Union Hospital**. Therefore, we will proceed to enable the therapeutic substitution for Union Hospital sites only immediately. The capability to do so exists within Cerner (indeed, Union sites also have a different formulary from all IUH sites; Cerner explicitly allows for this).

I appreciate the vigorous commentary of my colleagues on this. We clearly have an appetite to explore the adoption of ISMP Best Practice 13 systemwide. Efforts to get it approved for the entirety of IUH are now underway, and we look forward to the day where we take injectable promethazine out of our EMR altogether.

20180326 SBAR MFM 310

SBAR

S: Maternal Fetal Medicine referrals require a nurse review to determine best appointment time and coordination based on mother and baby needs along with the baby's gestational age. Our current process is: the internal referral orders in Cerner are routed to the individual clinics and the nurse reviewing the referrals is not located at the clinics. The referring internal provider is required to print out clinical documentation out of Cerner and fax the referral form.

B: The process is legacy from before the department went on Cerner and had a formal nurse referral review.

A: It is a waste of resources to require the internal referring provider to print and fax referrals and clinical notes. The orders are routed to clinics. We have a best practice which works well for Primary Care. Their referrals are routed to a referral service task list to work and set up an appointment to IUHP specialties. This task list is called ANT Multi-Patient Task List.

R: We would like a MFM patient referral task list. Also, we would like the MFM referral internal from Cerner route to this task list so our referral nurse can review them. This will eliminate the paper process and streamline the Cerner electronic process allowing a nurse to easily pull and review the referral to determine appropriate scheduling.

CHIO COUNCIL DELIBERATION

Speaking FOR: None

Speaking AGAINST: None

Speaking TO: Buckwalter, Webber, Park

VERDICT

REVERT TO MODEL.

Commentary by Buckwalter: Is there a Cerner Model Standard for this process? This request seems reasonable, but it does not meet regulatory or strict break-fix nor is it clear that it satisfies Cerner Model Standard. More information is required.

Commentary by Webber: I support this effort. However this SBAR proposes a solution without adequate background. It appears that the request is to help MFM use the internal communication processes in the Cerner EMR more effectively. I meet routinely with MFM leadership to help them in their efforts, and do not recommend replicating the Primary Care workflow for MFM. I recommend instead that the MFM service line be provided support by the clinical EMR teams (*e.g.* the Uplift team) to do a workflow evaluation and provide help to adopt standard available tools. This would also help their program with their impending move to concentrate their staff at Riley in 2019.

Commentary by Park: It is not within Cerner Model Standard to have such a task list in the first place; Primary Care is actually operating outside of Model in that respect. This provides us with an opportunity to promulgate Cerner Model Standard workflows in this space. I hereby order that Webber and Busch begin a conversation with MFM leadership toward that goal.

20180326 SBAR PROPHYLACTIC ANTIBIOTICS

SBAR

S: The current list of prophylactic antibiotics on the M-25 has not been updated since 2014, leading to nursing staff not having the antibiotic options they need and taking the nursing staff longer to document this piece of the M-25.

B: Antibiotics have been added to the list over the years without validating what was already in the dropdown and whether or not those options were available for use within IUH. Many of the antibiotics on the current list are no longer formulary or in policy and many of the meds that are in policy are not included on the list resulting in broken standard work requiring the medication to be typed into the M-25 manually.

A: The current prophylactic antibiotic list is lengthy, inaccurate to the current policy and the antibiotics are not organized in a logical manner. The current list of antibiotics listed in the M-25 was reviewed/validated by the statewide PeriOp council and Infectious Disease pharmacist.

R: Shorten the list from 46 options in the dropdown to the 26 options that are being used and available in the IU Health and Union systems and organize them in alphabetical order.

CHIO COUNCIL DELIBERATION

Speaking FOR: Teague, Buckwalter, Schaffer, Oates, Webber, Ivory, Park

Speaking AGAINST: None

Speaking TO: None

VERDICT

APPROVED.

Commentary by Teague: I think this sounds great.

Commentary by Buckwalter: Recommend approval. Looks like a true break-fix (broken so let's fix it in this case).

Commentary by Schaffer: Support. Anywhere that we can clean up bad information like this, we should support similar to Model.

Commentary by Oates: Support.

Commentary by Webber: Sounds helpful, and will support if this is aligned with Essential Clinical Dataset work and Nursing Uplift. Defer to Ivory to determine if this is aligned.

Commentary by Ivory: Support.

Commentary by Park: This is a shining example of a true break-fix. It is thus with great pleasure that I approve this request.

20180326 SBAR RAPID DX PAGER

SBAR

S: The Indiana University Health microbiology lab currently has multiple rapid diagnostic tools for positive blood cultures that are not being utilized by clinicians in an optimal manor to impact patient care.

B: Current process when a blood culture is growing an organism the micro lab technologist works up a gram stain and then call the nurse. Within two hours more information from either the Verigene® or the PNA-FISH® will be available to help narrow what organisms are present and whether there is antimicrobial resistance present but it is left to the clinician to go back and look for this information and to interpret it correctly.

A: Providers often forget to look back or do not know to look back at these positive blood cultures to get more information and adjust antimicrobial selection. Furthermore there are over 23 organism results and 8 resistance genes that can be detected making interpretation and standardizing decisions that optimize therapy difficult. The significant impact of these rapid diagnostic tools reported in the literature has always integrated the hospital antimicrobial stewardship team to ensure timely reporting of the information to the correct prescriber and provide real-time feedback on interpretation and antimicrobial selection. The pharmacist members of the Antimicrobial Stewardship Team are in an optimal position to communicate subsequent results after a blood culture becomes positive because they are a small group of ID focused practitioners that can provide directed recommendations to the appropriate provider as soon as the information is available, and ensure order implementation by entering any therapies the prescriber approves.

R: Create a rule that triggers on the Verigene or PNA-FISH result that sends a notification by pager or secure message to the pharmacist. There is already a model for this type of notification(Dan Kobold and paged out results under the discernible field Candida BLD PCR QL) that can be used and the rapid diagnostic tools in the lab are already available with appropriate ID pharmacist resources in place.

CHIO COUNCIL DELIBERATION

Speaking FOR: None

Speaking AGAINST: Park, Webber

Speaking TO: Buckwalter, Schaffer

VERDICT

DENIED.

Commentary by Buckwalter: The idea is logical. It is unclear if the proposed solution follows Cerner Model Standard. If a page is sent, will there be a record in Cerner of the communication?

Commentary by Schaffer: I am curious about two things: how often this will lead to a change in antibiotic coverage and the delta time between result of positive culture vs result of Verigene/FISH.

Commentary by Park: Pager notifications are in fact no longer allowed as they are non-secure, and we are under tremendous regulatory pressure. As such, the fact that this SBAR cites precedent does not sway me. Other rules of this type are now being retired due to the regulatory risk. Cerner Model Standard does have some options in this space, and we do deserve to do a workflow exploration here. The usage of a secure text messaging tool like DiagNotes, for instance, is likely the correct approach but we cannot operationalize such a thing yet.

Commentary by Webber: Vote nay. We have already declined any extension of existing clinical programs (*i.e.* PEWS) that utilize paging for communication. Advise authors to determine if a task list or other method of secure

PHI communication can be used. Also, please clarify if the Antimicrobial Stewardship team covers the entire IU Health system?

20180326 SBAR SMOKING CESSATION NIH STUDY

SBAR

S: IU Simon Cancer Center has been awarded an NCI grant (P30 Supplement; Cancer Center Cessation Initiative) to target cancer patients who are tobacco users for a focused tobacco treatment program (TTP).

B: Twenty-one percent of Indiana residents are smokers, which consistently ranks in the top 10 of tobacco use in the country. IU Health and the IU Simon Cancer Center have declared tobacco treatment a focus for both the cancer center and the health care system. One of the requirements for the cancer center to achieve comprehensive cancer center status—which is a priority for the cancer center— is the presence of a tobacco treatment program. Toward that end IU Simon Cancer Center submitted a proposal and was awarded an NCI grant (P30 Supplement; Cancer Center Cessation Initiative) to develop a tobacco treatment program. The amount awarded was $500,000 ($250,000/year x 2yrs), and the IU Health and IU SCC leadership also committed an additional $300,000 for a total of $800,000 to develop a sustainable program that could be disseminated. Included in the budget is $60,000 ($30,000 each year) that has been earmarked for IT development to assist in patient identification, data collection and program evaluation. As part of the funding, we are mandated to create necessary changes to EMR to facilitate the tobacco treatment program. Inability to do so could result in the NCI funding being revoked, which would significantly diminish the Cancer Center's chances for renewal of the Cancer Center grant.

A: The requirements for the grant are changes to the EMR system in order to (1) support identification of cancer center patients who are smokers, (2) generate an automatic referral to the IU SCC TTP for the patients who were identified, (3) collect required measures (# adults seen in cancer center clinics, # patients with tobacco use, # patients with current tobacco use, # patients non-cigarette tobacco users, # patients who were not screened for tobacco use, # patients engaged in the tobacco treatment program, # patients who declined participation in TTP, demographics (age, gender, race, ethnicity), tobacco treatment that patient accepted, # patients who tried to quit in past 30 days. As a measure of program "reach," we will need to be able to specify the % unique patients who are screened for tobacco use, are referred to the TTP, and receive one or more cessation interventions recommended or provided by the TTP. We also will want to be able to analyze intervention and outcome data by intervention type, stage of disease, and type of cancer.

R: First, create a rule (or edit a current rule) using the social history: smoker identification and oncology clinic locations (8 clinics listed below*) to send a message to the message inbox of the program coordinator. This will allow the program coordinator to enroll the identified patient in the tobacco cessation program. Second, develop a report that can be generated on a monthly basis for reporting of the outcomes of the SCC TTP. The required variables are # adults seen in cancer center clinics, # patients with tobacco use, # patients with current tobacco use, # patients noncigarette tobacco users, # patients who were not screened for tobacco use, # patients engaged in the TTP**, # patients who declined participation in TTP**, demographics (age (18-24, 25-44, 45-64, > 65), gender, race, ethnicity), tobacco treatment that patient accepted** (options include 1-800-QUIT-NOW, in-house in person TPP, text mobile resource, web resource, cessation medication program), # patients who tried to quit within past 30 days**, # patients who remain off tobacco products for >6/12/18mths**. {Variables with double

asterisks (**) are those that would be built into the TTP clinic note.} Patients should be re-assessed for tobacco use at each clinical encounter.

CHIO COUNCIL DELIBERATION

Speaking FOR: Buckwalter, Teague, Schaffer, Oates, Webber in part, Ivory in part

Speaking AGAINST: Park

Spkeaing TO: Webber in part, Ivory in part

VERDICT

PROVISIONALLY APPROVED.

Commentary by Buckwalter: We need to support. Appears that future Cancer Center funding may be at risk The question is how can this be integrated into existing smoking cessation Cerner alerts? One approach would be to identify a Cancer Center physician champion and pair him/her with an IS project manager plus an Informatics TC.

Commentary by Teague: Agree, this should be support. Logistics of how to make it so would be the question.

Commentary by Schaffer: Support and suggest we take the opportunity to clean up our various smoking rules while we are at it. There are over 10 such rules that likely ought to be retired.

Commentary by Oates: Support. Hope this would be available to any smoker as future state.

Commentary by Webber: Support conditionally only. This appears to be a referral program that will support patients in Indianapolis area only, authors need to be able to speak to how this limited application will impact performance. Agree with Schaffer that this needs to also include a comprehensive understanding of our approach to tobacco alerts. Finally, this is clinical research and should be managed by that group (there was much work that went into the consents and policies around applying research rules to all patients in the IUH EMR).

Commentary by Ivory: While I support, the ask here is in line with another study underway (SBIRT) through system nursing. SBIRT involves the ability of nurses to screen, offer brief intervention to and refer to treatment for tobacco, alcohol, and/or other substances. **The SBIRT tools are Model in the Cerner Behavioral Health module, which we will be taking on in the near future.** I suggested to Cerner nursing leadership at the recent CNO conference that they would be valuable in other applications as well. With the overall increased focus on behavioral health and substance use/abuse overall, we should look at a comprehensive strategy.

Commentary by Park: No substantive change to the EMR should be brought to this council when the train, so to speak, left the station long ago. The kinds of EMR intervention requested by this SBAR are extremely performance onerous, and as such **CANNOT BE APPROVED**. We are not in the business of decreasing performance for all so that some may prosper. That being said, this is research and it is a critical part of the mission of IU Health to support such research.

Therefore, while we are in full support of this research, we cannot utilize the specific means that this SBAR proposes to get there. The next step in this endeavor will be a collaboration between the requestor, IU Health TC leadership, IU Health Nursing leadership, and the IU Health IS Research support division to ascertain how to best operationalize the NCI requirements. We look forward to this.

14 MARCH 2018

20180307 SBAR HEARING SCREENING SMART TEMPLATES

SBAR 1

S: There is an AdHoc Form "AMB Vision Screening" which includes both hearing and vision screening forms/bands, and the results post to Result Review but they don't show up with the vitals in the MPage workflow. The results do post to the Results Review page. These results also do not show up in the DynDoc note anywhere.

B: The family medicine offices at Jay do a lot of pre-employment physicals and need to document hearing and vision. They are mostly using DynDoc notes.

A: There is a Smart Template entitled "ST Visual Acuity" that pulls the data from the Vision Screening data, but not the Hearing Screening data; in other words, there is no way to pull the Hearing Screening data via ST.

R: Create a new Smart Template that would pull the Hearing Screening data, similar to how ST Visual Acuity pulls the vision screening data. It would be used in AutoText to pull the data into DynDoc notes.

SBAR 2

S: Ambulatory Vision Screening Ad Hoc form that is filled out by clinical staff for the CDL Certification and Patient Physical Exam, does not pull the hearing screening to Dynamic Documentation when completed.

B: There is an AutoText Smart Template built to pull the vision screening into the Dynamic Documentation when charted. The vision and hearing screening are both charted on the same AdHoc form. The ST Vision Acuity Smart Template will pull the vision screen but not allow the hearing screen to be pulled to the charting.

A: Unable to pull the hearing screen when appropriately charted to the Dynamic Documentation with Smart Template.

R: Build or modify the current Smart Template to include pulling the hearing screen.

CHIO COUNCIL DELIBERATION

Speaking FOR: Buckwalter, Kumar in part, Schaffer, Park in part

Speaking AGAINST: None

Speaking TO: Park in part

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: These are two SBARs that are substantially similar. We will need to drive at a single verdict.

Commentary by Schaffer: Is this something that worked in PowerNote but does not in DynDoc? If so, investigation may bear fruit in understanding Smart Template capabilities and failures across both worlds. It makes sense that if we are pulling in some parts of this form this should pull in hearing as well.

Commentary by Buckwalter: Agree with Schaffer. Tools should support efficient workflow.

Commentary by Kumar: Agree content overlap between the two SBARs.

Commentary by Busch: There is a Cerner Model PowerForm called Vision Screening POC that is similar to IUH's Vision Screening PowerForm. Model in this space would be to (a) have a single appropriately-titled PowerForm with Hearing Screen and Vision Screen as separate sections, and (b) have two different STs – one for vision screen, the other for hearing screen. IUH already does (a), except it may be misleadingly named. IUH should do (b) as well.

Commentary by Park: Therefore, we will do the following:

- If the AdHoc form is truly named "AMB Vision Screening", then it should be renamed as "AMB Hearing and Vision Screening".
- "ST Visual Acuity" is not the Model Standard naming convention. This should be "ST Vision Screening".
- Build out a new Smart Template entitled "ST Hearing Screening" that has the results of the hearing screen.
- Make sure that all existing PowerNotes and DynDoc Templates still function as designed after these renames.

20180307 SBAR LIMITED CODE STATUS ORDER

SBAR

S: The current format of the limited code status order does not include external cardiac pacing and code drugs as illustrated in ADM policy 1.44, Withholding or Withdrawal of Life-Prolonging Procedures.

B: During resuscitation events there have been moral and ethical dilemmas due to lack of clarity regarding specific exclusions. Providers often omit the special instructions or type in additional details within the special instructions which do not display as part of the main order.

A: Display of the code order is unclear, providers often select "Other – Specify in Special Instructions" and do not provide additional instructions lending to confusion as noted in display of the order, display on alerts band, and chart summary.

R: AHC and Methodist Code Blue Councils have discussed this issue at length and have made the following recommendation: request to add nomenclature for "no external cardiac pacing" and "no code drugs" and remove "other – specify in special instructions" as selections within the limited code status order to mirror policy changes and bring clarity to code responders around patient choice for resuscitation.

CHIO COUNCIL DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: Our current Cerner build is very far away from Cerner Model Standard. Cerner Model Standard dictates a single "Resuscitation Status" orderable instead of the system of disparate orderables that we have in our system. This lack of adherence to Cerner Model Standard has both performance and architectural consequences. This is part of the reason, for instance, why the "Code Status" field in the Banner Bar is a custom field.

The Cerner Model Standard code set for Resuscitation Status is:

- Full Code
- Do Not Resuscitate
- Do Not Intubate
- Do Not Resuscitate and Do Not Intubate
- All but Chest Compression
- All but Defibrillation
- All but Compression and Defibrillation
- Limited (Please Specify)

This, however, is insufficient for the purposes of our discussion, and the Adult AHC's policy on this matter. A Cerner Model Standard-compliant but longer code set might look like this:

- Full Code
- Do Not Resuscitate
- Do Not Intubate
- Do Not Resuscitate and Do Not Intubate
- All but Chest Compression
- All but Defibrillation
- All but External Pacing
- All but Code Drugs
- All but Compression and Defibrillation
- All but Compression and Ext Pacing
- All but Compression and Code Drugs
- All but Defibrillation and Ext Pacing
- All but Defibrillation and Code Drugs
- All but Ext Pacing and Code Drugs
- All but Compression, Defibrillation, and Ext Pacing
- All but Compression, Defibrillation, and Code Drugs
- All but Compression, Ext Pacing, and Code Drugs
- All but Defibrillation, Ext Pacing, and Code Drugs

It is absolutely necessary to revert back to Cerner Model Standard in this space. However, we are sympathetic to the fact that such a reversion is not easy to do and will require a significant education run before and after. We are also aware of the fact that POSTs further complicate matters in this space. As such, we will do the following:

1. Kick off, plan out, and execute on a project to revert Code Status orderables to Cerner Model Standard
    a. As a part of this project, reach out to other large academic Cerner clients to see what they do in this space
2. In the interim:
    a. Add "No External Pacing" and "No Code Drugs" to the existing Limited Code Status orderable's code set.
    b. Remove "Other – Specify in Special Instructions" from said code set.
3. Run (2) as a Standard Change, as this will wipe out Favorites.

20180307 RILEY HOME NEBS FOR ED

SBAR

S: Riley ED would like to automate the home nebulizer order requisition process the same way pulmonary clinic has.

B: The Riley Emergency Department vendor contract for home nebulizer machines abruptly ended. Riley ED now uses Xpress nebs and would like for the order to route electronically to Care Alliances Services (CAS) just as outpatient clinics do.

A: Currently there is an Outpatient Home Care Nebulizer order. CAS receives the order electronically and sends it to Xpress nebs for processing. Riley is currently using a paper process to get the home nebulizer billed to the patient correctly. The orders team was helping Riley ED get that order in their catalog and checked the routing, but the order will not work on an "Emergency" encounter because it's an Outside order.

R: Requesting to build an order for Riley ED Emergency encounters to function exactly as the Outside Home Care Nebulizer order does for clinic patients.

CHIO COUNCIL DELIBERATION

Speaking FOR: None.

Speaking AGAINST: Kumar, Park

Speaking TO: Schaffer, Wolford

VERDICT

AWAIT CERNER MODEL.

Commentary by Schaffer: Support in concept. How tall is the hurdle for getting Outside Orders to work in Emergency encounters?

Commentary by Park: If I recall correctly, Outside Orders don't electronically route at all. Wolford – am I wrong?

Commentary by Kumar: An email attached to the SBAR states that "Outside Orders can only be placed on IP encounters" – this does not make sense. How is this order going to CAS for IP workflow? Is this a custom build? Can we not have it function like a DME prescription that is electronically submitted – because it needs to go to CAS

and can only transmit to pharmacies? Outside Orders, in any case, are not Model. Is it Future Orders to Scheduling that allow us to go away from Outside Orders?

Commentary by Wolford: Outside orders indeed do not route anywhere. They can only be set up to print or show in a virtual print queue. As for how heavy of a lift to allow on Emergency encounters, it would be updating a rule but it also opens up a whole host of issues where people enter an Outside Order incorrectly on the encounter and since they do not route to any downlines patient care is delayed or missed. Also, as Dr. Kumar points out, Outside Orders are not Model and as we drive the orderables to Model we will be getting rid of Outside Orders altogether. The other thought is that this should function as a DME order which is also in the process of being moved to Model and could be printed as a prescription and sent to CAS but I don't think it would be electronically sent in that situation.

Commentary by Park: Then we cannot go down this route. We will await the implementation of the Cerner Model Standard in this space.

20180307 SBAR UROGYN FREE TEXT FIELD

SBAR

S: Nurse or MA is unable to place a free text comment in the UroGynecology Testing AdHoc PowerForm.

B: One of the fields in this PowerForm ins the Voided Volume field. If the patient has voided their bladder prior to the appointment, the nurse is unable to obtain this measure, therefore leaving this field blank or with a 0.

A: If this field is left blank it causes the provider to believe that the Nurse or MA did not record the information from the testing, they are unaware that the Nurse or MA was unable to perform the test due to the patient already voiding prior to the office visit. This causes confusion with the provider asking the nurse why the results are not in the form.

R: They would like to have a free text comment field added to the PowerForm: UroGynecology Testing AdHoc Form. This is in order to add a comment on why the result is listed as a 0 or blank. Example: "Patient voided in bathroom prior to visit". This is so that the Nurse or MA can have the provider be aware that the testing was attempted, yet unable to be performed, as well as the reason it was unable to be performed.

CHIO COUNCIL DELIBERATION

Speaking FOR: None

Speaking AGAINST: None

Speaking TO: Buckwalter, Busch, Kumar, Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Buckwalter: Could this be a process issue and not a need for a new Cerner comment field? If there is no sample, then put a 0 rather than leaving it blank. Alternatively, if the field accommodates -1 then that could be used to indicate there was no ability to obtain a sample.

Commentary by Kumar: This should fall to our ambulatory nursing PowerForm workflow audience and adhere to standard PowerForm build. I vote for Ambulatory CIS review, unless Model defines this space.

Commentary by Busch: From what I can see in Model pretty much all of our Ambulatory POC PowerForms have a field called "POC Test Comments" – a free text field to enter the kind of information the SBAR brings up.

Commentary by Park: Therefore, Model defines this space. I hereby order a comprehensive review of **all Ambulatory PowerForms** to ensure adherence to Model. As for the UroGynecology Testing AdHoc form in specific, this means adding in a "Test Comments" free text field as stipulated by Model.

7 MARCH 2018

20180205 SBAR PEDIATRIC TRIAGE WEIGHTS

SBAR

S: Cerner currently has an alert that fires in Triage when a weight is entered and Cerner determines that the weight is possibly in error. The resulting workarounds cause multiple medication variances in the Riley Emergency Department.

B: The alert fires on two conditions: weight outside of parameters, or weight greater than 10% difference from previous. This alert incorrectly identifies pediatric patients. For children, growth is a normal developmental pattern. Additionally, obese children may fall outside of the predicted weight for age. When a nurse in Triage documents a weight and Cerner fires this alert, the nurse is forced to sign the Triage form and the weight is recorded in the triage form only, leaving the Weight for Calculation blank. Only pharmacy or prescribers may correct this by manually entering a weight for calculation.

A: This leads to a workflow that has produced multiple medication errors:

- Once the provider tries to enter an order for medication, they receive a request to document weight which they frequently bypass (providers entering weight for calculation is not impossible, but also not part of routine workflow).
- Providers routinely verbally ask the nurse the triage weight (only recorded in the triage form), then use a manual calculator or pen/paper to calculate a finite dose.
- Entering the finite dose in the mg/kg box leads to an erroneous calculation in the dose box before the provider can change dose units from mg/kg. This has resulted in overdose orders in the Riley ED.

R: Suspend the alert immediately for patients < 18 years and work to revise the workflow.

CHIO COUNCIL DELIBERATION

Speaking FOR: Buckwalter, Ivory, Oates, Webber

Speaking AGAINST: None

Speaking TO: Park

VERDICT

APPROVED.

Commentary by Calkins: This alert is useful in the adult population and should not be turned off there.

Commentary by Park: The process here is broken in the first place. We ask the pediatric ED to revise their workflow – when a weight for calculation does not exist there needs to be a uniform process to correct this no matter what the setting. This is a workflow issue as much as it is an EMR issue. We are happy to fix the EMR portion of it here.

20180206 SBAR PEDIATRIC EARLY WARNING SYSTEM (PEWS) WCR

SBAR

S: The WCR would like to implement the Pedatric Early Warning System (PEWS) already deployed at IU Health in Cerner for Inpatient and as needed use in the ED.

B: PEWS is currently being used at Riley. The PEWS PowerForm contains the scoring tool selected by the Pediatric Code Committee and validated in multiple settings to predict pediatric decompensation leading to respiratory or cardiac failure within a 4 hour window. If the score changes rapidly or is > 8, the Rapid Response Team is notified and a CART is called. WCR has no pediatric early warning system and therefore would like to adopt the PEWS tool with appropriate response by clinical services.

A: This tool is a tool to help bring attention to patients who are at risk for rapid decline and need for higher level of care. This tool will aid in increased patient safety for our pediatric patient population. Cerner does not currently have a Model Standard for pediatric early warning systems; however, many Cerner pediatric centers utilize a similar combination of assessment tool + notification. IU Health would anticipate adopting additional Cerner Model content for pediatric predictive warnings when available.

R: The PEWS PowerForm is already available to facilities in the WCR, but does not have a communication piece for elevated scores. The WCR requests:

- Adding the PEWS task for the assessment.
- Adding a communication to the Pedatric Charge Nurse (pager 765-742-3980) for a PEWS score of 8 or above.

CHIO COUNCIL DELIBERATION

Speaking FOR: Buckwalter, Oates, Webber

Speaking AGAINST: Park in part

Speaking TO: Park in part

VERDICT

PROVISIONALLY APPROVED.

Commentary by Park: I compliment the writer of this SBAR for a great example of what I expect in such a document. I also applaud the fact that she checked as to what Cerner Model Standard is. The only issues that exist with this request are the technical ones. It is not within Cerner Model Standard to do alerts to specific pager numbers, and we need to make sure that Cerner Model Standard is upheld in design of all nursing tasks. A done/not done task will not be tolerated in this or any other space, for instance. We will need to come up with the most appropriate plan for the above items.

20180208 SBAR 310 FILED / DO NOT DISCHARGE ALERT

SBAR

S: The 310 Filed / Do Not Discharge alert is not consistently deployed. This alert is to bring awareness that the patient has an active 310 filed with Child Protective Services to prevent premature discharge and also to help medical teams appropriately manage security and information flow.

B: The 310 Alert is triggered upon chart open when Social Work has entered the Suspected Child Abuse / Child Neglect Order Set for any applicable patient less than 18 years of age. The same alert is also fired if a discharge order is placed. Locations currently with this alert turned on are: Riley, Arnett, Ball, North, Bloomington, and Paoli.

A: Potential risks for not having this set consistently across the system:

- Delayed discharge if CPS not given adequate notice of discharge date
- Potential discharge without appropriate clearance and resulting patient safety concerns

R: Enable at Blackford, Frankfort, Methodist, University, West, and White. Having this alert on at this time is most likely temporary until Cerner Model options become available.

CHIO COUNCIL DELIBERATION

Speaking FOR: Buckwalter, Oates, Webber

Speaking AGAINST: None

Speaking TO: Park

VERDICT

APPROVED.

Commentary by Park: This alert is both an Open Chart alert and an Add To Scratchpad alert. The Add To Scratchpad variant is a hard stop. Even so, it has not fully stopped patients from being discharged to inappropriate caregivers. As such, it is inherently not the right way to go. There will be a performance impact to generalizing this system of alerts. However, I note the willingness to go to a Cerner Model option when one becomes available (as there are none in this space so far), and I also note the unity of CC leadership across the enterprise on this matter. We will revisit this matter as more options become available to us, or when Cerner has a Model Standard in this space.

20180214 SBAR PROBLEM LIST

SBAR

S: Currently, once a problem is entered on the Problem List, it can be converted to “chronic” or “resolved”.

B: This has led to challenges for inpatients, who frequently have significant problems during the admission. If they are “resolved” in the EMR, they drop off and disappear from the Problem List; this is clearly an undesirable outcome. Yet these are not “chronic” problems either. For instance, a patient with sepsis may have completed a course of antibiotics and is no longer septic, yet sepsis is still the primary reason for admission and ongoing care.

A: There is a need to identify and categorize problems that are resolved during the admission, which allows them to be included as relevant in the progress note, handoff or transfer notes, and discharge documents until discharge.

R: Creation of a designation of a problem type that is resolved during the encounter, such as "medical – resolved during this encounter". This will encourage engaged use of the problem list and promote use of the Hospital Course component and DynDoc fields that use the existing Problem List. Cerner does not have a Model Recommendation for this item currently, but this proposal has been submitted to them for inclusion in Model going forward.

DELIBERATION

Speaking FOR: None

Speaking AGAINST: None

Speaking TO: Buckwalter, Kumar, Oates, Schaffer, Webber, Park

Recusal: Webber (author of SBAR)

VERDICT

AWAIT CERNER MODEL.

Commentary by Kumar: I have too many questions on this one and a gap of understanding of DynDoc capabilities. Why is the sepsis not entered as a "This Visit"? Would that not result in ability to document it for IP encounter on DynDoc in A&P and then not cross encounters because it is not "chronic", hence no need to "resolve"?

Commentary by Webber: This is for inpatients. For some patients with long stays, sepsis may be treated early in the course -but the physicians feel it's inaccurate to keep charting on it as "this visit - active." Nor is it "chronic." It occurred during the admission but is now completed. The physicians want to include it as an event during the admission. Cerner model knows this is a gap and has looked to adapt this proposal for Model. Our statewide NICU physicians can provide more examples of this group needs to see them.

Commentary by Schaffer: I agree in concept.

Commentary by Oates: I am a fan of every problem being some type of ongoing medical issue. Sepsis should be a problem until they are better, then resolve it. It is a diagnosis for any billing event that addressed it. Why not just use inactive or resolved for the sepsis if it is recovered? Or use the additional details under status and call it "improving".

Commentary by Buckwalter: Agree with Oates. It could be challenging if it falls off the list and knowledge of the episode needed by another person/team in the future. Some discussion over pros and cons might aid in clarifying.

Commentary by Kumar: From an inpatient facility billing standpoint, the abstraction occurs from the narrative in the note for the encounter (i.e. coding and CDI staff are not looking at the Diagnosis per say that the providers are entering as they are focusing on the content in the note) so the DRG will include the sepsis, even if that sepsis is 'unchecked' for the "This Visit" on the day that it has resolved ...sepsis, then, no longer displays on the Impression & Plan for that date (the provider would have explained the day before that the sepsis has resolved, in the note

then unchecked the 'this visit' and the next day the 'sepsis' no longer displays). As far as having another status for problems - I think, this particular request is complex enough that it better lends itself to a working session/ dialogue.

Commentary by Park: This issue is too nuanced to solve by tinkering with the EMR. If Cerner is aware of the issue, it is not incumbent upon us to attempt to force a solution. We will therefore not force a solution. We will discuss this briefly at the next live CHIO Council meeting, but our strategy is to await Cerner Model in this space.

20180220 SBAR LACTATE REFLEX FOR SEPSIS

SBAR

S: If a lactate level is ordered and comes back > 2, it reflexes to a second lactate in 2 hours. This is part of a compliance bundle for SEP-1. If the patient's FIN has to change, this generally has the effect of terminating the encounter – and that will have the effect of cancelling the second lactate altogether.

B: This is a problem particularly in Critical Access Hospitals, where by regulations FINs must change frequently, particularly in the transition between the ED visit and the Inpatient visit for admitted patients.

A: It would be optimal for the rule to follow the patient, not the FIN. Critical Access Hospitals are at particular risk for not being able to meet the SEP-1 quality measure.

R: The lactate reflex rule should key off the MRN, not the FIN.

DELIBERATION

Veto: Park

VERDICT

VETOED.

Commentary by Park: This request is vetoed because It is not technically feasible. The problem has to do with the fact that all inpatient/ED orders are discontinued at the end of the encounter, and changing the FIN changes the encounter altogether. This is an issue that must be solved for now with workflow. At other IDNs with a sizeable mix of Critical Access Hospitals, a transfer checklist system is generally put into place such that critical things like a repeat lactate are flagged for immediate re-order by the inpatient team.

20180307 SBAR ED ROOM NUMBERS

SBAR

S: Ensuring efficiency in medication delivery to the Emergency Department at Methodist Hospital has been a major issue leading to delays in care as well as a large amount of medication waste due to duplicate preparation.

B: Currently all Methodist ED medications coming from pharmacy are delivered to a central location within the ED to the unit secretaries cubicle space. This includes medications for patients located in the Fast Track and

Observation sections of the ED which are located a reasonable distance from this area. Unit secretaries or pharmacists identify patient location on tracking board to then redistribute the meds to nursing areas including Fast Track and Observation. For patients physically in Observation Unit, their Cerner location may be obs ("MAGS") or virtual ("VMEMER"). Pharmacy knows to tube medications to the Observation Unit for patients with MAGS designation but VMEMER status leads to delivery to the unit secretary bin causing additional confusion for Observation nurses on where to look for medications.

A: The medication delivery process needs to be revamped using input from all disciplines involved (pharmacist, pharmacist technician, unit secretaries, and nursing) to create the most effective and efficient process. Potential changes include adjusting where medications are delivered based on patient location, identifying a person to be responsible for scheduled checking of the medication bin, and/or adjusting how pharmacy delivers (hand deliver vs tube station).

R: Add room numbers to location in Cerner. This will appear then in Banner Bar and on labels. Medication labels with room numbers will allow a quicker medication delivery process as a chart search will not have to be done for each patient and will allow proper initial delivery to the various sections of the ED. This addition, along with other changes, would significantly reduce delay in medication administration and reduce medication waste due to 2nd requests for medications. This fix would include turning on Room Numbers for ED Locations across the system. This will have multiple safety and efficiency downstream effects.

DELIBERATION

Override: Park

VERDICT

REVERT TO CERNER MODEL.

Commentary by Park: It is within the Cerner Model Standard to build out room numbers for all locations, including EDs. We will proceed in that spirit. That being said, this change is a large-scale project that has many workflow implications. Schaffer is assigned to lead the effort and drive it to completion.

20180307 SBAR REMOVE PHARMACY REJECTED FROM NOT GIVEN REASON

SBAR

S: Patients not receiving their medications because nurses charted "Not Given: Pharmacy Rejected". This is not an acceptable reason to use when charting a medication as not given to a patient.

B: There have been several reports of medication errors or near misses where charting "Not given: pharmacy rejected" has contributed. This can cause medication errors in several common scenarios:

- Warfarin ONCE ordered. A pharmacist rejects to wait for pending INR. If a nurse charts "Not given", the order changes to a complete status and falls off the MAR. This can lead to omission of intended therapy.
- Post-op antibiotics ordered for a set number of doses. A pharmacist rejects the order pending documentation of procedural doses to ensure proper timing. When a nurse charts on that order, the patient may not receive the full course of therapy.

A: Data analysis shows the following:

- The "Not Given: Pharmacy Rejected" reason was used 2,938 times between December 31st 2016 and December 31st 2017.
- Orders from January 2017 were further reviewed (n=369).
    - 253 orders were never rejected in Cerner history but they were still charted as "NOT GIVEN: Pharmacy Rejected"
    - 48 orders were rejected, but the charted date and time as "NOT GIVEN: Pharmacy Rejected" occurred before the rejection date and time stamp.
    - 45 orders were rejected according to the Cerner history and the pharmacist addressed them appropriately. The final action was either verified, modified, or discontinued. This final action took between 6 minutes to days to complete according to the date and time stamp.
    - 23 orders were rejected and later discontinued. The charted date and time for "NOT GIVEN: Pharmacy Rejected" may have occurred days later which indicates the nurse was cleaning up his or her outstanding task list on the eMAR. The pharmacist should have voided the discontinued order.

R: Remove the “Pharmacy Rejected” reason for the drop-down list of Not Given reasons. The nursing staff should not administer or chart on a medication that has been 'rejected' by a pharmacist. The correct action is to wait for the order to be verified as is, modified after clarification with provider, or discontinued.

DELIBERATION

Override: Park

VERDICT

APPROVED.

Commentary by Park: Here we have a situation in which incorrect information is being routinely charted in the EMR. The requestor’s data-driven approach is duly noted; we would hope that most SBARs submitted to the CHIO Council in the future would be backed with such data. There are clear and present regulatory and patient safety dangers to what the requestor has discovered. As such, this request is approved without further deliberation.

22 JANUARY 2018

20180112 HEARING SCREEN IN MEDICARE WELLNESS EXAM TEMPLATES

SBAR

S: Medicare Annual Wellness visits do not contain a Hearing Evaluation section and thus we are not getting reimbursed for a majority of these visits.

B: Received notification from Coding Compliance that our Medicare Wellness Visit note template was missing a key component necessary for obtaining payment for performing these visits.

A: Medicare Wellness Committee met on 12 January 2018 to discuss and it was decided that this is imperative for documentation and that a majority of providers doing these visits will not know to insert a statement of hearing ability into the note without a prompt from the standard Medicare Wellness Visit template.

R: Immediately adjust the Medicare Wellness Visit DynDoc and PowerNote templates to include a section pertaining to the Hearing Evaluation. The verbiage was provided to Linda Wood. This will allow providers a visual cue to complete this task and thus improve our reimbursements for these visits.

CHIO COUNCIL DELIBERATION

Speaking FOR: Calkins, Kumar, Webber

Speaking AGAINST: None

Speaking TO: Busch, Park

VERDICT

APPROVED.

Commentary by Busch: This is congruent with Cerner Model Standard. There exists a Cerner Model Standard Hearing Evaluation PowerForm that gets pulled into Medicare Wellness Visit notes.

Commentary by Park: Cerner Model Standard in all things – especially in regulatory matters like this one.

20180115 DATE OF BIRTH AND FIN ON DYNDOC HEADERS

SBAR

S: Date of Birth does not display on Dynamic Documentation templates. Upon investigating the issue, it is also noted that the FIN/Encounter Number is also not present on Dynamic Documentation reports.

B: Date of Birth and FIN were previously included in the demographics banner at the top of PowerNote templates. Both are missing in the demographics banner at the top of DynDoc templates. This is affecting patient identification and billing in offices that do not use Cerner yet.

A: Cerner has provided a new build that allows the Date of Birth to pull into Dynamic Documentation notes. We would like analysts to investigate whether FIN is included in the new build as well.

R: Please complete the Cenre build that pulls the Date of Birth (and possibly FIN) into the demographics banner in DynDoc notes so that patients are identified more easily and billing can be completed properly.

CHIO COUNCIL DELIBERATION

Speaking FOR: Kiray, Kumar

Speaking AGAINST: Webber

Speaking TO: Busch, Schaffer

VERDICT

REVERT TO CERNER MODEL STANDARD.

Commentary by Busch: It is **not within Cerner Model Standard** to pull DoB or FIN into the demographics banner of DynDoc or PowerNote templates. Cerner Model Standard does, however, make provisions for indicators like DoB and FIN to be included in the header/footer for **Draft Print** and **Distribution to External Recipients**.

Commentary by Park: The above, therefore, is what we will do for **all clinical document types in DynDoc**. It Is incumbent upon all requesters to ask the preliminary question "what is Cerner Model in this space?"; the exercise of doing so will naturally lead us to the right path.

20180117 TRANSCRIBED LABS (VITAMIN B12, FREE T4)

SBAR

S: Currently unable to transcribe labs for Vitamin B12 and Free T4.

B: When a patient gets labs done at a facility outside of IU Health, the other facility will fax the lab results to the IU Health office. Someone at the office will enter the lab values on a PowerForm (Ad Hoc Charting) and the results will be visible in Results Review (labs on the workflow) for the provider. Vitamin B12 and Free T4 are common tests, but there is nowhere to document them on the PowerForm. In order for the providers to review these results they must currently review the scanned document instead. There is also no way to include these results in provider documentation.

A: Prevents providers from seeing results quickly; results could be missed. Also, prevents provider from pulling these lab results into their notes.

R: Please add Vitamin B12 and Free T4 to Transcribed Lab Ad Hoc form under Chemistry.

CHIO COUNCIL DELIBERATION

Speaking FOR: Kiray, Schaffer, Simpson, Webber

Speaking AGAINST: None

Speaking TO: Kumar, Park

VERDICT

APPROVED.

Commentary by Kumar: It may be better for us to go with a Decision Document format, rather than an SBAR format. The request's original SBAR was too information-sparse to be useable.

Commentary by Simpson: This may already be in process. Dr. Cavaghan requested a rebuild that would separate out endo testing to a single PowerForm. Vitamin B12 and Free T4 are included in Change 33881. We are awaiting some feedback from Dr. Cavaghan on the proposed change and then it should be ready for CareNet to build.

Commentary by Park: Agree with Kumar that the original SBAR was not well-written. Furthermore, this is a great example of how deploying Cerner Reference Lab Network and eliminating the Inside/Outside orders workflow will help providers in the long run.

20180119 SHOW SCHEDULING COMMENTS ON AMBULATORY ORGANIZER

SBAR

S: The Ambulatory Organizer does not show free text comments from the scheduled appointment while Schedule Viewer does show this detail.

B: A surgery scheduler will often add free text comments to the surgery appointment to better describe the procedure, as the pre-built procedure may not entirely reflect the intended procedure.

A: There is a preference available in Ambulatory Organizer that will allow for the free text comments added by surgery schedulers to be viewable when clicked on from Ambulatory Organizer. It is currently set to **OFF**. Setting it to **ON** should be very useful for all surgery clinics. This also helps to push forward Ambulatory Organizer as the solution to replace Schedule Viewer across the enterprise.

R: Turn **ON** the "View Additional Procedure Details" preference in Ambulatory Organizer.

CHIO COUNCIL DELIBERATION

Speaking FOR: Calkins, Kumar, Park, Webber

Speaking AGAINST: None

Speaking TO: Busch

VERDICT

APPROVED.

Commentary by Busch: This is **ALIGNED** with Cerner Model Standard.

Commentary by Park: Therefore, we will implement this immediately. I would also like to call out this particular SBAR as the best-written of the SBARs that we have ever received.

15 DECEMBER 2017

20171204 PRN PAIN SCORE

SBAR

S: PRN Pain reason with the attached pain score at the medication level is not meeting the PACU situation to explain acute post op pain.

B: Immediately out of surgery and in PACU Phase I, patients coming out of sedation are experiencing acute post op pain. In PACU during phase I, pain control is a critical goal that is addressed as soon as the patient presents to the unit. To expeditiously achieve pain control, medication is administered based on time intervals of 5 minutes to the patient, working toward achieving a moderate pain level. The physician orders one medication to do this bringing the patient from severe pain to moderate pain.

A: The UH Anesthesia department uses one powerplan (Anesthesia POCU/PACU Orders – UH) to direct their care of a patient. There are 6 IV Analgesics in the plan to address pain while the patient is in PACU phase I. Oral medications are not appropriate at this time due to the patient's state of sedation.

R: We are requesting that a PRN Pain reason of "Acute Post Op Pain-- 4-10 Pain Score (PACU ONLY)" be added to the PRN Reason field and be used in the powerplan for the phase I medications.

CHIO COUNCIL DELIBERATION

Veto: Park

VERDICT

VETOED.

Commentary by Park: this is vetoed simply because it is duplicative of current work that is being done with a uniform postoperative pain phase.

20171204 TRANSCRIBED LABS (PHENYLALANINE)

SBAR

S: We need a way to add phenylalanine levels to Cerner that do not get added by the lab.

B: Our clinic monitors blood phe levels for patients diagnosed with PKU. These specimens are sent to the department on protein saver cards and then processed by the newborn screening lab. Some of these patients are on the drug Kuvan which is the only FDA approved medication for this disorder. The drug company pays for the patient's phe levels as this is an essential part of their care and a requirement to stay on the drug. Since the patient is not charged these specimens cannot be processed and billed through the system. Therefore results return several patients to a sheet as we have over 200 patients on the medication.

A: Phe levels are used to inform medical management decisions for patients diagnosed with PKU. There needs to be a way to trend these labs and have them as part of the patient's official medical record. Phe levels that are processed through the lab are available for view under results review in the patients chart and this should be the standard for all patients.

R: Recommend that this lab be added to the transcribed lab form in Cerner.

CHIO COUNCIL DELIBERATION

Speaking FOR: Buckwalter, Calkins, Schaffer

Speaking AGAINST: None

Speaking TO: Park, Webber

VERDICT

APPROVED.

Commentary by Park: If approved, this goes forward on the grounds of Clinical Criticality.

Commentary by Webber: We must follow standard work.

20171212 RADIATION ONCOLOGY MESSAGE CENTER

SBAR

S: Ambulatory Organizer (AO) and Message Center (MC) not built on RadTx: Radiation Therapist position toolbar.

B: At the time the RadTX positions were built, all documentation and workflow in Radiation Oncology existed in Aria. AO and MC were not necessary for their workflow at that time.

A: Project team reviewed the RadTx: Radiation Therapist position and found that AO and MC were the missing solutions needed to support their Cerner future state workflow.

R: Add AO and MC to the RadTx: Radiation Therapist to allow for an efficient adoption of Cerner workflow

CHIO COUNCIL DELIBERATION

Speaking FOR: Buckwalter, Calkins, Park

Speaking AGAINST: None

Speaking TO: Park

VERDICT

APPROVED.

Commentary by Park: While this does fall in line with Cerner Model Standard workflow, in future SBARs we expect to see the proposed clinical workflow in Cerner outlined. The *raison d'être* of the CHIO Council is, after all, not simply to approve or disapprove of change requests. It is to ensure that clinical workflow as it relates to the EMR is at a gold-standard level throughout the entirety of the enterprise. **We will always have a substandard EMR if we continue in our folly of trying to adapt it to our myriad workflows; we will do much better if we adopt a known model standard**.