Intensive Care Unit: Acuity Tool Certification

Institution Name:	*Tufts Medical Center*
Hospital Contact Name: **Title:** **E-mail Address:** **Phone Number:**	*Justin T. Precourt RN, MSN* *Executive Director Nursing and Patient Care Services* *jprecourt@tuftsmedicalcenter.org* *617-636-6266*
Name of Proposed Acuity Tool:	*Cerner Clairvia*
Acuity Tool Format:	*electronic*
Intensive Care Units in which the acuity tool will be deployed:	*Proger 6 North—NCCU* *Proger 6—CCU* *Pratt 7—MICU* *Proger 5—CTU* *Proger 5—SICU* *Floating 6—PICU* *North 2—NICU (To be deployed by January 2017)*

I. Acuity Tool Description

Cerner Clairvia **provides decision support for assignment making of ICU patients through transparent staff workload analysis. The recommended staffing is used to approximate the hours per patient day (HPPD) that would be delivered to ICU patients. The HPPDs are used for the primary five acuity levels for the clinical area using a proportional algorithm. The result is an acuity-staffing methodology that recognizes the need for additional workload associated with Admission, Discharge, Transfer (ADT) events, identifies variation of workload between acuity levels based on a distribution of workloads and ratios, provides workloads based on what is needed to improve the patient's outcomes at each acuity level during the patient's stay and as the patient moves among the continuum of care/clinical areas, and provides an acuity level and outcomes assessment as a by-product of routine clinical documentation.**

The key to staffing is providing the right complement of staff to optimize each patient's plan of care to ensure that they are receiving the appropriate level of care throughout their hospitalization. ***Cerner Clairvia Demand Manager*** **measures patient demand for staffing in real-time providing decision support to adjust staffing based on patient care needs. The demand calculation includes volume, acuity & the impact of admissions, discharges & transfers on nursing workload.**

The ***Cerner Clairvia Demand Manager*** **target hours or ratios are based on evidence, combining real time census, activity on the unit, and patient acuity. The** ***Cerner Clairvia Demand Manager*** **target ratios may differ from the legislated or**

contractual ratios. Both approaches provide decision support and should be used with clinical judgment to make staffing decisions for each patient. *Cerner Clairvia Demand Manager* enables viewing of both.

***Cerner Clairvia Outcomes Driven Acuity* integrates with each acute hospital's existing clinical practices for patient assessment. The nurse uses clinical skill (gained through continuing education and experience) to assess the patient, and then documents the patient assessment into the electronic clinical record. *Cerner Clairvia Outcomes Driven Acuity(CCODA)* emphasizes the importance of documenting the entire nursing process, including problem identification, diagnosis, planning, interventions and evaluation.**

Because the calculation of acuity makes secondary use of nursing and other clinical documentation it leverages established nursing approaches and evidence based documentation ICU nurses already use.
***Cerner Clairvia Patient Assignment* provides an option to override the recommended hours per patient day or ratio to reflect nursing judgment to determine the appropriate patient assignment.**

Tufts Medical Center will be assessing patient acuity at a minimum of every shift prior to the time that staffing decisions are made and within the timeframe needed to accurately and appropriately assess patient assignments for the current and on-coming shifts.

II. Methodology for Scoring Acuity

***CCODA* is based on the methodology of University of Iowa's Nursing Outcomes Classification (NOC), a comprehensive standardized classification of patient outcomes developed to evaluate the effects of nursing interventions. NOC provides a structure to measure outcomes across time and setting and assists nurses in identifying the outcomes for problems they address for ICU patients and families.**

Clinical data within the electronic clinical documentation of the EMR is mapped to outcomes from each NOC domain. The domain is the highest level of the organized structure and represents the breadth of patient/family state, behavior, and perceptions that can be evaluated using NOC outcomes. The NOC domains used in *CCODA* are Functional Health (capacity for and performance of basic tasks of life), Physiological Health (organic functioning), Psychosocial Health (psychological and social functioning), Health Knowledge & Behavior (attitude, comprehension, and actions with respect to health and illness), Perceived Health (impression of an individual's health and health care), and Family Health (health status, behavior or function of the family as a whole or of an individual as a family member).
The ICU patient progress is traced using the NOC system developed by the University of Iowa. The Likert scoring system is used to rank the level of patient progress toward meeting each expected outcome. Nurses use a five-point Likert scale to assess each patient outcome from one to five. A Likert rating of 1 is least desirable or greatest deviation from normal and a rating of 5 is the most desirable or a healthy, normal state.

CCODA **methodology is a combination of patient assessment, standardized outcomes terminology, clinical reasoning, decision rules, and budgetary decision making.** ***CCODA*** **contains two components: Patient outcome acuity assessment and the translation of outcome assessment data and other factors into staffing /workload recommendations.**

The clinical information in ***CCODA,*** **based on NOC, is referred to as the Patient Outcomes Acuity Assessment. The source of the outcome acuity assessment for an individual patient is the clinical data that the nurse enters into the electronic clinical documentation system as part of routine documentation standards for the hospital. The process by which the** ***CCODA*** **system application links the electronic patient clinical data with NOC outcomes takes place behind the scenes and is transparent to the nurse.**
The ***CCODA*** **assessment uses NOC critical care core outcome data set and associated indicators that are relevant to the critical care clinical area and then establish clinical mapping, by which electronic patient clinical data elements are linked to the NOC outcomes and indicators. Each NOC outcome is rated based on values of indicators. In each stage, nurse experts' clinical reasoning and decision making is essential for content validity of the selected NOC outcomes.**
Nurses document patient problems or nursing diagnoses, assessment data, and interventions in their nursing electronic clinical documentation application. As nurses save data, or at an organization's predefined interval, the clinical data documented electronically is sent to ***CCODA*** **which filters the documentation to locate clinical data mapped to the outcomes and indicators.** ***CCODA*** **applies business rules related to order of importance or equal importance to the indicators within each outcome. When the system receives values for indicators, the specific indicator that receives the value of the highest importance is the Likert score applied to the outcome. Patient status is compared to similar age, same sex in the community. The solution assigns each indicator an order of importance. Ranking is also done for each indicator to place weight on aspects which are more important than others. Rankings are similar to the Likert scale in that a 1 is the most important and 5 is the least important. The solution performs these calculations automatically and behind the scenes. Once the Likert rating for each outcome is calculated the patient acuity assessment score is populated.**
The patient acuity assessment score is aligned to a 12 point acuity scale to show variability among the patient population. The acuity sale is used to estimate the amount of nursing care time (workload) the patient will require. The patient acuity assessment is specific to a patient in a specific clinical area (such as the ICU) at a specific time. The number of acuity levels is driven by the span of the budgeted hours per patient day (HPPD) across the organization and the degree of acuity level variability among the patient populations. Data is analyzed regarding the personnel budget for direct care–giving staff (clinical hours per patient day), length of stay, and detailed information regarding nursing resources required for patient admissions, transfers, and discharges (ADT).

Age, care coordination, transitional care, and discharge planning are all captured through the clinical documentation of the bedside nurse and translated from the EHR to CCODA system. The result is an acuity-staffing methodology that recognizes the need for additional workload associated with Admission, Discharge, Transfer (ADT) events, identifies variation of workload between acuity levels based on a distribution of workloads and ratios, provides workloads based on what is needed to improve the patient's outcomes at each acuity level during the patient's stay and as the patient moves among care continuum/clinical areas, and provides an acuity level and outcomes assessment as a by-product of routine

clinical documentation. All factors are weighted through an EHR interface and the clinical documentation by the bedside nurse. Standard workload is assigned to all admissions, discharges, and transfers. The workload standard is designed to capture the added workload associated with care transitions. The amount of workload assigned to each task is based upon national benchmarks and standards through time capture studies.

The amount of time for ADT is treated in a specific way for nurse staffing in *CCODA.* The impact of ADT time is referred to as ADT Impact. The ADT Impact is a function of the number of patients in the unit, the average length of stay in the unit, the time spent for ADT, and the probability of each event. The result of removing ADT impact from HPPD is referred to as the ADT adjusted HPPD. This approach of specifically calculating the impact of patient activity on nursing intensity is significantly more accurate than bundling it into the HPPD.

Measuring intra-shift patient care workload is important to capture accurately both actual and future workload measurements and improve scheduling practices. Intra-shift workload is influenced by changes in volume, changes in patient acuity, and the patient care requirements during patient events, specifically admissions, transfers, and discharges. The time required by the RN and the Unlicensed Assistive Personnel (UAP) (as applicable) to admit, transfer, and discharge a patient is subtracted from the direct patient care HPPD, then added back in at the time the event actually occurs, keeping the process budget neutral. The removal of the impact of ADT events from the HPPD is the ADT Adjusted Budgeted HPPD.

As outcomes based acuity methodology, *CCODA* calculates the acuity score and workload needed to assist each patient to progress toward improved health conditions, as measured by the patient's clinical outcome levels at multiple points in time. These data points are used to make caregiver assignments.

III. Indicators Included

	Clinical Indicators of Patient Stability
☒	Physiological status
☒	Clinical complexity*
☒	Related scheduled procedures
☒	Medications and therapeutic supports
	Indicators of Staff Nurse Workload
☒	Patient age
☒	Patient and family communication skills and cultural/linguistic characteristics
☒	Patient and family education

***CCODA* supports clinical indicators of patient stability including physiological status, clinical complexity(including devices, lab values), related scheduled procedures (interventions and bedside procedures), and medications and therapeutic support appropriate to the ICU patient population in the ICU in which *CCODA* is deployed. Clinical Complexity is a composite of all clinical indicators and patient care needs. The source of the outcome acuity assessment for individual ICU patients is the clinical data that the nurse enters into the EMR as part of routine documentation standards for the hospital. *CCODA* uses nursing assessments, interventions, procedures, medications and lab values to assess patient workload.**

***CCODA* supports staff nurse workload associated with caring for the adult, pediatric, and neonatal ICU patients. NOC outcomes and indicators specific to critical care are scored and ranked in terms of importance, to determine**

☒	Family and other support	**nursing workload. Indicators include patient age, including gestational age as applicable, cognitive/functionality, patient and family communication skills and cultural/linguistic characteristics, a need for patient and family education, family and other support for the ICU patient, a need for care coordination, transitional care and discharge planning required for the ICU patient. The outcome assessments capture the complexity of patient and family care needs, effectiveness of nursing interventions and progress of patient problems.**
☒	Care coordination	
☒	Transitional care and discharge planning	

*Note: Clinical complexity is a composite of all defined indicators.

IV. For the ICU(s) listed above, please briefly describe how your acuity tool meets the unique care needs and circumstances of the patient population in that ICU

Proger 6 North—NCCU: ***CCODA* generates an acuity score and level based on the electronic nursing and other clinical documentation (referred to as indicators). Many of the items charted are mapped to the critical care standard outcome set, defined by ICU clinical content area. The outcome set is designed to provide a holistic assessment of each patient's need for nursing care at multiple points in time and to measure progression at the outcome level.** ***CCODA* supports clinical indicators of patient stability including physiological status, clinical complexity (including devices, lab values), related scheduled procedures (interventions and bedside procedures), and medications and therapeutic support appropriate to the ICU patient population in the ICU in which *CCODA* is deployed. *CCODA* is calculated at predetermined staffing decision points and driven by the clinical documentation from the ELECTRONIC HEALTH RECORD. *CCODA* supports the assessment frequency based on the facility determinations for example but not limited to: on admission to the ICU, during the shift, and at intervals determined by the facility. The source of the outcome acuity assessment for individual ICU patients is the clinical data that the nurse enters into the EMR as part of routine documentation standards for the hospital. *CCODA* uses nursing assessments, interventions,**	**Proger 6: CCU** ***CCODA* generates an acuity score and level based on the electronic nursing and other clinical documentation (referred to as indicators). Many of the items charted are mapped to the critical care standard outcome set, defined by ICU clinical content area. The outcome set is designed to provide a holistic assessment of each patient's need for nursing care at multiple points in time and to measure progression at the outcome level.** ***CCODA* supports clinical indicators of patient stability including physiological status, clinical complexity (including devices, lab values), related scheduled procedures (interventions and bedside procedures), and medications and therapeutic support appropriate to the ICU patient population in the ICU in which *CCODA* is deployed. *CCODA* is calculated at predetermined staffing decision points and driven by the clinical documentation from the ELECTRONIC HEALTH RECORD. *CCODA* supports the assessment frequency based on the facility determinations for example but not limited to: on admission to the ICU, during the shift, and at intervals determined by the facility. The source of the outcome acuity assessment for individual ICU patients is the clinical data that the nurse enters into the EMR as part of routine documentation standards for the hospital. *CCODA* uses nursing assessments, interventions,**

procedures, medications and lab values to assess patient workload. The *CCODA* application links the electronic patient clinical data with NOC outcomes behind the scenes and is transparent to the nurse. *CCODA* uses a critical care core NOC outcome standard data set and associated indicators that are relevant to the critical care patient population and then establish clinical mapping which electronic patient clinical data elements are linked to the NOC outcomes and indicators. **In the NCCU, *CCODA* would be able to differentiate the workload associated with a stable post-operative craniotomy patients and would display the change in the patient's acuity throughout -his ICU stay. So initially when the RN is documenting frequently, the patient is still intubated, and has just arrived direct from the operating room the system would rate the patient with a high acuity based upon the NOC hierarchy and the workload associated with a new admission. As the patient got better, had the breathing tube removed and was out of bed and ambulatory the patient's acuity would decrease as would the associated workload.**	**procedures, medications and lab values to assess patient workload. The *CCODA* application links the electronic patient clinical data with NOC outcomes behind the scenes and is transparent to the nurse. *CCODA* uses a critical care core NOC outcome standard data set and associated indicators that are relevant to the critical care patient population and then establish clinical mapping which electronic patient clinical data elements are linked to the NOC outcomes and indicators.** **In the CCU, *CCODA* has the ability to differentiate the difference between caring for a patient whom has had a heart attack and is in the ICU for monitoring, but is otherwise stable, and a patient who has multiple invasive lines, percutaneous ventricular support, and requires multiple vasoactive agents. Through the frequency of documentation and the utilization of a Likert scale for physiological indicators each patient would be weighted significantly different as would the level of care each requires.**
Pratt 7—MICU ***CCODA* generates an acuity score and level based on the electronic nursing and other clinical documentation (referred to as indicators). Many of the items charted are mapped to the critical care standard outcome set, defined by ICU clinical content area. The outcome set is designed to provide a holistic assessment of each patient's need for nursing care at multiple points in time and to measure progression at the outcome level.** ***CCODA* supports clinical indicators of patient stability including physiological status, clinical complexity (including devices, lab values), related scheduled procedures (interventions and bedside procedures), and**	***Proger 5—CTU*** ***CCODA* generates an acuity score and level based on the electronic nursing and other clinical documentation (referred to as indicators). Many of the items charted are mapped to the critical care standard outcome set, defined by ICU clinical content area. The outcome set is designed to provide a holistic assessment of each patient's need for nursing care at multiple points in time and to measure progression at the outcome level.** ***CCODA* supports clinical indicators of patient stability including physiological status, clinical complexity (including devices, lab values), related scheduled procedures (interventions and bedside procedures), and**

medications and therapeutic support appropriate to the ICU patient population in the ICU in which *CCODA* is deployed. *CCODA* is calculated at predetermined staffing decision points and driven by the clinical documentation from the ELECTRONIC HEALTH RECORD. *CCODA* supports the assessment frequency based on the facility determinations for example but not limited to: on admission to the ICU, during the shift, and at intervals determined by the facility. The source of the outcome acuity assessment for individual ICU patients is the clinical data that the nurse enters into the EMR as part of routine documentation standards for the hospital. *CCODA* uses nursing assessments, interventions, procedures, medications and lab values to assess patient workload. The *CCODA* application links the electronic patient clinical data with NOC outcomes behind the scenes and is transparent to the nurse. *CCODA* uses a critical care core NOC outcome standard data set and associated indicators that are relevant to the critical care patient population and then establish clinical mapping which electronic patient clinical data elements are linked to the NOC outcomes and indicators. **In the MICU, *CCODA* has the ability to differentiate between caring for a patient whom has chronic respiratory compromise and is on stable ventilator settings and is in the ICU for monitoring waiting for long term care treatment, and is otherwise stable, and a patient who is having difficulty ventilating, is unstable via vital signs, and has a complex diagnosis. Through the frequency of documentation, interventions/outcomes, and the utilization of a Likert scale for physiological indicators each patient would be weighted significantly different as would the level of care each requires.**	**medications and therapeutic support appropriate to the ICU patient population in the ICU in which *CCODA* is deployed. *CCODA* is calculated at predetermined staffing decision points and driven by the clinical documentation from the ELECTRONIC HEALTH RECORD. *CCODA* supports the assessment frequency based on the facility determinations for example but not limited to: on admission to the ICU, during the shift, and at intervals determined by the facility. The source of the outcome acuity assessment for individual ICU patients is the clinical data that the nurse enters into the EMR as part of routine documentation standards for the hospital. *CCODA* uses nursing assessments, interventions, procedures, medications and lab values to assess patient workload. The *CCODA* application links the electronic patient clinical data with NOC outcomes behind the scenes and is transparent to the nurse. *CCODA* uses a critical care core NOC outcome standard data set and associated indicators that are relevant to the critical care patient population and then establish clinical mapping which electronic patient clinical data elements are linked to the NOC outcomes and indicators.** **In the CTU, *CCODA* has the ability to differentiate between caring for a stable post-operative patients who is on stable ventilator settings and is in the ICU for awakening and extubation, and a patient who is unstable and has a chest that is open, requiring multiple vasoactive agents to maintain stable vital signs. Through the frequency of documentation, interventions/outcomes, and the utilization of a Likert scale for physiological indicators each patient would be weighted significantly different as would the level of care each requires.**
Proger 5—SICU ***CCODA* generates an acuity score and level based on the electronic nursing and other clinical documentation**	***Floating 6—PICU*** ***CCODA* generates an acuity score and level based on the electronic nursing and other clinical documentation**

(referred to as indicators). Many of the items charted are mapped to the critical care standard outcome set, defined by ICU clinical content area. The outcome set is designed to provide a holistic assessment of each patient's need for nursing care at multiple points in time and to measure progression at the outcome level. ***CCODA* supports clinical indicators of patient stability including physiological status, clinical complexity (including devices, lab values), related scheduled procedures (interventions and bedside procedures), and medications and therapeutic support appropriate to the ICU patient population in the ICU in which *CCODA* is deployed.** ***CCODA* is calculated at predetermined staffing decision points and driven by the clinical documentation from the ELECTRONIC HEALTH RECORD. *CCODA* the assessment frequency based on the facility determinations for example but not limited to: on admission to the ICU, during the shift, and at intervals determined by the facility.** **The source of the outcome acuity assessment for individual ICU patients is the clinical data that the nurse enters into the EMR as part of routine documentation standards for the hospital. *CCODA* uses nursing assessments, interventions, procedures, medications and lab values to assess patient workload. The *CCODA* application links the electronic patient clinical data with NOC outcomes behind the scenes and is transparent to the nurse. *CCODA* uses a critical care core NOC outcome standard data set and associated indicators that are relevant to the critical care patient population and then establish clinical mapping which electronic patient clinical data elements are linked to the NOC outcomes and indicators.** **In the SICU, *CCODA* has the ability to differentiate the difference between caring for a stable post-operative patient who is on stable ventilator settings and is in the ICU for awakening and extubation, and a patient who is an unstable trauma and is bleeding profusely, requiring**	**(referred to as indicators). Many of the items charted are mapped to the critical care standard outcome set, defined by ICU clinical content area. The outcome set is designed to provide a holistic assessment of each patient's need for nursing care at multiple points in time and to measure progression at the outcome level.** ***CCODA* supports clinical indicators of patient stability including physiological status, clinical complexity (including devices, lab values), related scheduled procedures (interventions and bedside procedures), and medications and therapeutic support appropriate to the ICU patient population in the ICU in which *CCODA* is deployed.** ***CCODA* is calculated at predetermined staffing decision points and driven by the clinical documentation from the ELECTRONIC HEALTH RECORD. *CCODA* supports the assessment frequency based on the facility determinations for example but not limited to: on admission to the ICU, during the shift, and at intervals determined by the facility.** **The source of the outcome acuity assessment for individual ICU patients is the clinical data that the nurse enters into the EMR as part of routine documentation standards for the hospital. *CCODA* uses nursing assessments, interventions, procedures, medications and lab values to assess patient workload. The *CCODA* application links the electronic patient clinical data with NOC outcomes behind the scenes and is transparent to the nurse. *CCODA* uses a critical care core NOC outcome standard data set and associated indicators that are relevant to the critical care patient population and then establish clinical mapping which electronic patient clinical data elements are linked to the NOC outcomes and indicators.** **In the PICU, the *CCODA* has the ability to interpret the distinct multisystem needs of the baby/child with CHD post operatively. The tool will be able to measure nursing outcomes for cardiac output, fluid and nutrition**

multiple vasoactive agents to maintain stable vital signs. Through the frequency of documentation, interventions/outcomes, and the utilization of a Likert scale for physiological indicators each patient would be weighted significantly different as would the level of care each requires.	**management and prevention of infection. The tool will measure parent/family education and support outcomes.** ***North 2—NICU (To be deployed by January 2017)*** ***CCODA* generates an acuity score and level based on the electronic nursing and other clinical documentation (referred to as indicators). Many of the items charted are mapped to the critical care standard outcome set, defined by ICU clinical content area. The outcome set is designed to provide a holistic assessment of each patient's need for nursing care at multiple points in time and to measure progression at the outcome level.** ***CCODA* supports clinical indicators of patient stability including physiological status, clinical complexity (including devices, lab values), related scheduled procedures (interventions and bedside procedures), and medications and therapeutic support appropriate to the ICU patient population in the ICU in which Cerner Clairvia Outcomes Based Acuity is deployed.** ***CCODA* is calculated at predetermined staffing decision points and driven by the clinical documentation from the ELECTRONIC HEALTH RECORD. *CCODA* supports the assessment frequency based on the facility determinations for example but not limited to: on admission to the ICU, during the shift, and at intervals determined by the facility. The source of the outcome acuity assessment for individual ICU patients is the clinical data that the nurse enters into the EMR as part of routine documentation standards for the hospital. *CCODA* uses nursing assessments, interventions, procedures, medications and lab values to assess patient workload. The *CCODA* application links the electronic patient clinical data with NOC outcomes behind the scenes and is transparent to the nurse. *CCODA* uses a critical care core NOC outcome standard data set and associated indicators that are relevant to the critical care patient**

	population and then establish clinical mapping which electronic patient clinical data elements are linked to the NOC outcomes and indicators. **In the NICU, the tool will distinguish between the cardiac and respiratory stability of the babies of different birth weights and gestational/developmental ages. It will also measure the specific psychological/emotional and educational parental/family outcomes.**

Please see the attached supporting documents.

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February 19, 2016

Eric Sheehan, JD, Interim Director
Department of Public Health
Bureau of Health Care Safety and Quality
99 Chauncy St. 11th floor
Boston, Ma 02111

Dear Mr. Sheehan,

We are writing this letter to you as a response to the memo Tufts Medical Center received via the HCFRS system dated February 16, 2016. In such letter, three clarifying questions were asked of the Tufts Medical Center acuity tool.

Please see our responses attached within this document. We look forward to hearing any questions, comments, or ideas you may have regarding our acuity tool.

Sincerely,

Justin T. Precourt RN, MSN
Executive Director Nursing and Patient Care Services
Tufts Medical Center
Boston, Ma 02111
(617)-636-6266

Question 1:
The acuity tool does not specify how it will be used to calculate the number of nurses or nursing hours required to care for the patient. How do acuity scores translate to nurse staffing hours?

Response to Question 1:

Cerner Clairvia Outcomes Driven Acuity (CCODA) supports assignments of ICU patients by making ratios transparent. The staffing ratios that are used to approximate the hours per patient day (HPPD) that would be delivered to ICU patients are used to associate nursing ratios with each of the primary five acuity levels for the clinical area using a proportional algorithm. The result is an acuity-staffing methodology that recognizes the need for additional workload associated with Admission, Discharge, Transfer (ADT) events, identifies variation of workload between acuity levels based on a distribution of workloads and ratios, provides workloads based on what is needed to improve the patient's outcomes at each acuity level during the patient's stay and as the patient moves among care continuum/clinical areas, and provides an acuity level and outcomes assessment as a by-product of routine clinical documentation. A budget neutral caregiver-to-patient ratio by time of day for each skill is calculated using the staffing pattern for direct patient caregivers per unit and ADT Adjusted HPPD.

The key to staffing is providing the right number of staff to optimize each patient's ability to move through the organization as efficiently as possible. *Cerner Clairvia Demand Manager* measures patient demand for staffing in real-time providing decision support to adjust staffing based on patient care needs. The demand calculation includes volume, acuity & the impact of admissions, discharges & transfers on nursing workload.

The *Cerner Clairvia Demand* target hours or ratios are based on evidence, combining real time census, activity on the unit, and the patient acuity. The *Cerner Clairvia Demand* target ratios may differ from the legislated or contractual ratios. Both approaches provide decision support and should be used with clinical judgment to make staffing decisions for each patient. *Cerner Clairvia Demand Manager* enables viewing of both.

Cerner Clairvia Patient Assignment provides an option to override the recommended hours per patient day or ratio to reflect nursing judgement in consultation with the nurse manager or designee to determine the appropriate patient assignment.

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Response to Question 1 Cont:

Patient Acuity Assessment Status

Acuity Summary	1	2	3	4	5	6	7	8	9	10	11	12	--
	--	--	--	--	--	--	1	--	4	3	--	1	1

Printable View

Hx	Print All	Room/ Bed	Patient		Acuity	Modified By	Assessment Date/Time	Location	Status
		607	KEELY, MARIA 987654321			Interface		ICU	I
		601	DANIELS, MELISSA 123456789		7	Interface	04/14/2015 12:06	ICU	C
		602	HENRY, FRED 000111222		9*	Interface	**04/13/2015 16:17***	ICU	C
		603	CLANCY, WILLIAM 789456123		↑10	Interface	04/14/2015 08:20	ICU	C
		604	FRIENDLY, FRANK 741852693		9	Interface	04/14/2015 07:58	ICU	C
		605	WAGNER, LINDA 369258147		9*	Interface	**04/13/2015 18:23***	ICU	C
		606	ROGERS, BRUCE 876543210		10	Interface	04/14/2015 08:01	ICU	C
		608	JONES, ANNE 222333444		↓10	Jonson-RN	04/14/2015 14:11	ICU	C
		609	RIKER, THOMAS 111222333		9	Interface	04/14/2015 08:52	ICU	C
		610	LONG, LOUIS 999888777		12	Interface	04/14/2015 09:14	ICU	C

*Assessment more than 12 hours old

The above screen shot displays what an ICU charge nurse or ICU RN at Tufts Medical Center will see when entering the CCODA system. The Acuity scores are based upon the workload of each of these patients over a defined period of time. You would take the acuity score and add the two scores together to get the total hours of care required by the patient. The goal is a creation of assignments where staff are assigned out at 85% of total capacity to accommodate shifts in patient acuity throughout the shift. The *Cerner Clairvia Demand* target hours or ratios are based on evidence, combining real time census, activity on the unit, and the patient acuity.

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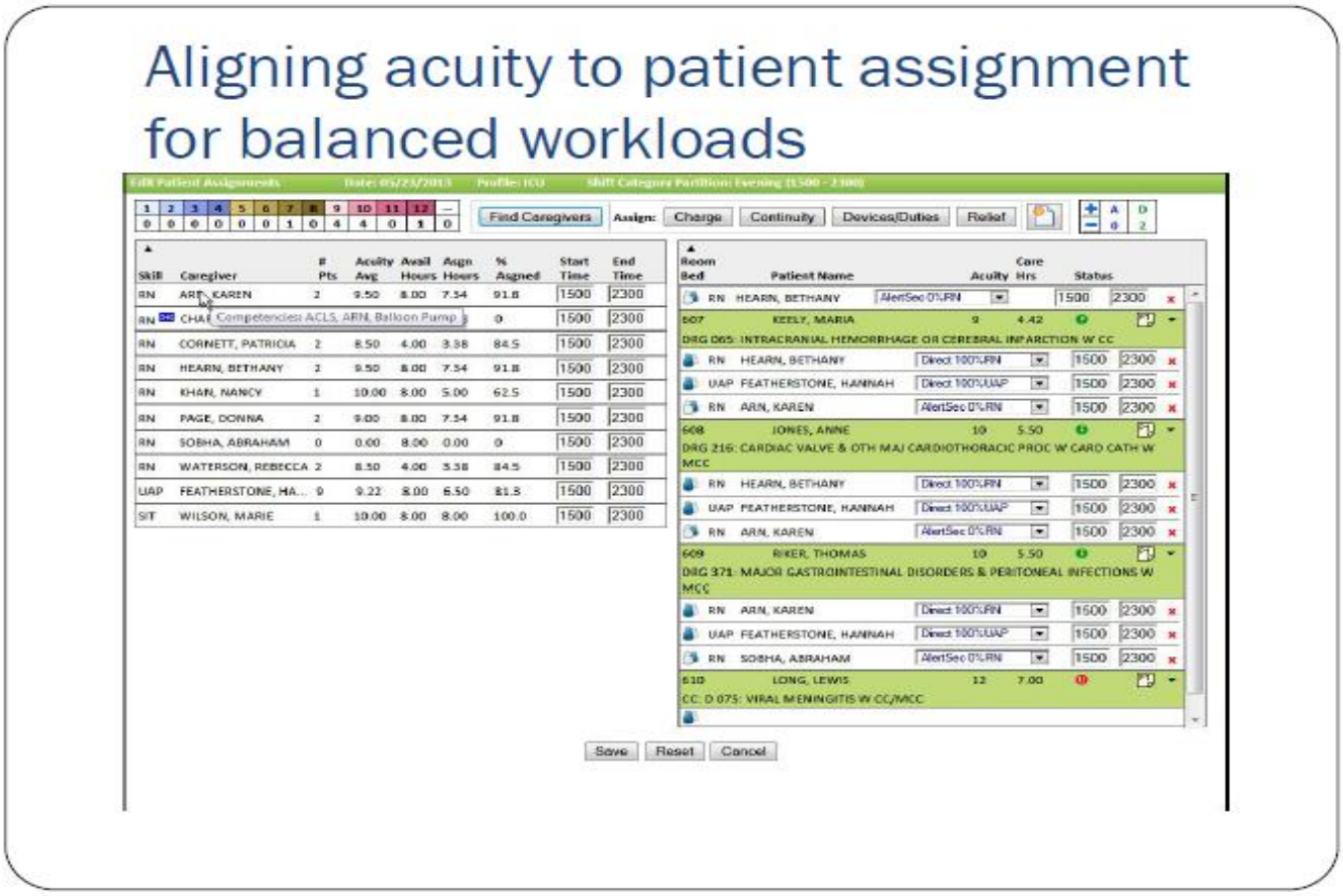
Below is another screen shot that identifies the movement of patients and their overall acuity scoring:

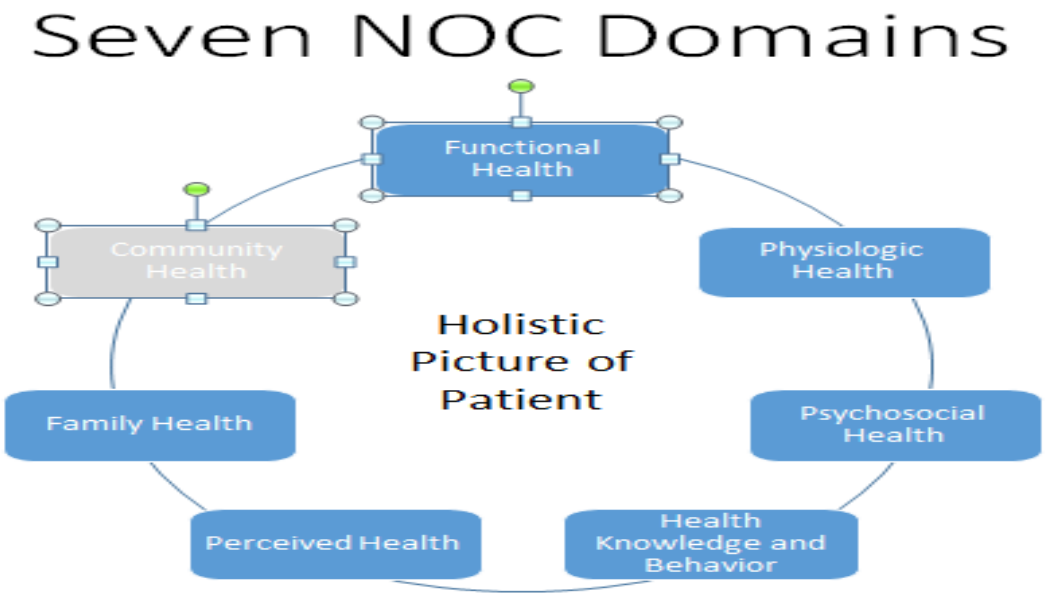


The above screen shot identifies the role of each individual on the unit at a given time, their % assigned, and acuity average. This is the tool that assists in balancing assignments and assuring that patients are assigned out appropriately.

Question 2:
The patient acuity tool assessment does not specify age, care coordination, transitional care, and discharge planning. Please clarify how these indicators are incorporated into the assessment.

Question 2 Response:

Clinical data within the electronic clinical documentation of the EMR is mapped to outcomes from each NOC domain. The domain is the highest level of the organized structure and represents the breadth of patient/family state, behavior and perceptions that can be evaluated using NOC outcomes. The NOC domains used in *Cerner Clairvia Outcomes Driven Acuity* are Functional Health (capacity for and performance of basic tasks of life), Physiological Health (organic functioning), Psychosocial Health (psychological and social functioning), Health Knowledge & Behavior (attitude, comprehension, and actions with respect to health and illness), Perceived Health (impression of an individual's health and health care), and Family Health (health status, behavior or function of the family as a whole or of an individual as a family member). CCODA take a holistic approach to the care of the patient and family through these NOC domains as outlined below:



Age, care coordination, transitional care, and discharge planning are all captured through the clinical documentation of the bedside nurse and translated from the EHR to CCODA system. The result is an acuity-staffing methodology that recognizes the need for additional workload associated with Admission, Discharge, Transfer (ADT) events, identifies variation of workload between acuity levels based on a distribution of workloads and ratios, provides workloads based on what is needed to improve the patient's outcomes at each acuity level during the patient's stay and as the patient moves among care continuum/clinical areas, and provides an acuity level and outcomes assessment as a by-product of routine clinical documentation.

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Sample Outcome Set:			
Domain	**Outcome Code**	**Outcome**	**Definition**
Knowl	1934	*Safe Health Care Environment	Physical and system arrangements to minimize factors that might cause physical harm or injury in the health care facility
Physio	0703	*Infection Severity	Severity of signs and symptoms of infection
Physio	1101	*Tissue Integrity: Skin and Mucous Membranes	Structural intactness and normal physiological function of skin and mucous membranes
Psych	1302	Coping	Personal actions to manage stressors that tax an individual's resources
Perc	2109	Discomfort Level	Severity of observed or reported mental or physical discomfort
Physio	0600	Electrolyte and Acid/Base Balance	Balance of electrolytes and non-electrolytes in the intracellular and extracellular compartments of the body
Family	2609	Family Support During Treatment	Capacity of a family to be present and to provide emotional support for an individual undergoing treatment
Physio	1015	Gastrointestinal Function	Ability of the gastrointestinal tract to ingest and digest food products, absorb nutrients, and eliminate waste
Physio	0504	Kidney Function	Ability of the kidneys to regulate body fluids, filter blood and eliminate waste products through the formation of urine
Knowl	1813	Knowledge: Treatment Regimen	Extent of understanding conveyed about a specific treatment regimen
Physio	0909	Neurological Status	Ability of the peripheral and central nervous system to receive, process, and respond to internal and external stimuli
Physio	1008	Nutritional Status: Food and Fluid Intake	Amount of food and fluid taken into the body over a 24-hour period
Physio	0415	Respiratory Status	Movement of air in and out of the lungs and exchange of carbon dioxide and oxygen at the alveolar level
Funct	0300	Self-Care: Activities of Daily Living (ADL)	Personal actions to perform the most basic physical tasks and personal care activities
Physio	0400	Cardiac Pump Effectiveness	Adequacy of blood volume ejected from the left ventricle to support systemic perfusion pressure
Physio	0407	Tissue Perfusion: Peripheral	Adequacy of blood flow through the small vessels of the extremities to maintain tissue function

All factors are weighted through an EHR interface and the clinical documentation by the bedside nurse. Standard workload is assigned to all admissions, discharges, and transfers. The workload standard is designed to capture the added workload associated with care transitions. The amount of workload assigned to each task is based upon national benchmarks and standards through time capture studies.

Question 3:

The acuity tool explanation does not specify how frequently acuity assessments are performed.

Question 3 Response:

Tufts Medical Center will be assessing patient acuity at a minimum of every shift prior to the time that staffing decisions are made and within the timeframe needed to accurately and appropriately assess patient assignments for the current and on-coming shifts.

January 25th 2016

Tufts Medical Center—Acuity Tool Submission

Cerner Clairvia Outcomes Driven Acuity

Tufts Medical Center

Floating Hospital for Children at Tufts Medical Center

Outcomes-Driven Acuity Terminology

Acuity: The measurement of variable nursing care required by the patient (Patient-centric)

Demand: A precise measurement of nursing intensity that includes volume, acuity, and patient activity and turnover (ADT)

Mapping: The association of relevant clinical charting elements with an outcome, an indicator, a specific Likert rating, and a rank (as applicable)

Nursing Intensity: The measurement of nursing care hours required by standard or regulation

Patient Event: An action that alters the need for or availability of nursing care

- Admissions, Discharges, Transfers
- Patient off unit with RN

ADT Impact is driven by:

- Average LOS by unit
- Average amount of time to admit, discharge, and transfer a patient by skill
- Percentage of patients admitted or transferred in
- Percentage of patients transferred out or discharged

Direct Patient Care HPPD:

Hours that fluctuate based on volume and are associated with caregivers that take a patient assignment. Typically does not include managers, clerical support. May include charge nurses or may partially include charge. Demand Manager with Outcomes-Driven Acuity calculates direct care hours only

ADT Adjusted Budgeted HPPD = direct care budget HPPD – ADT Impact

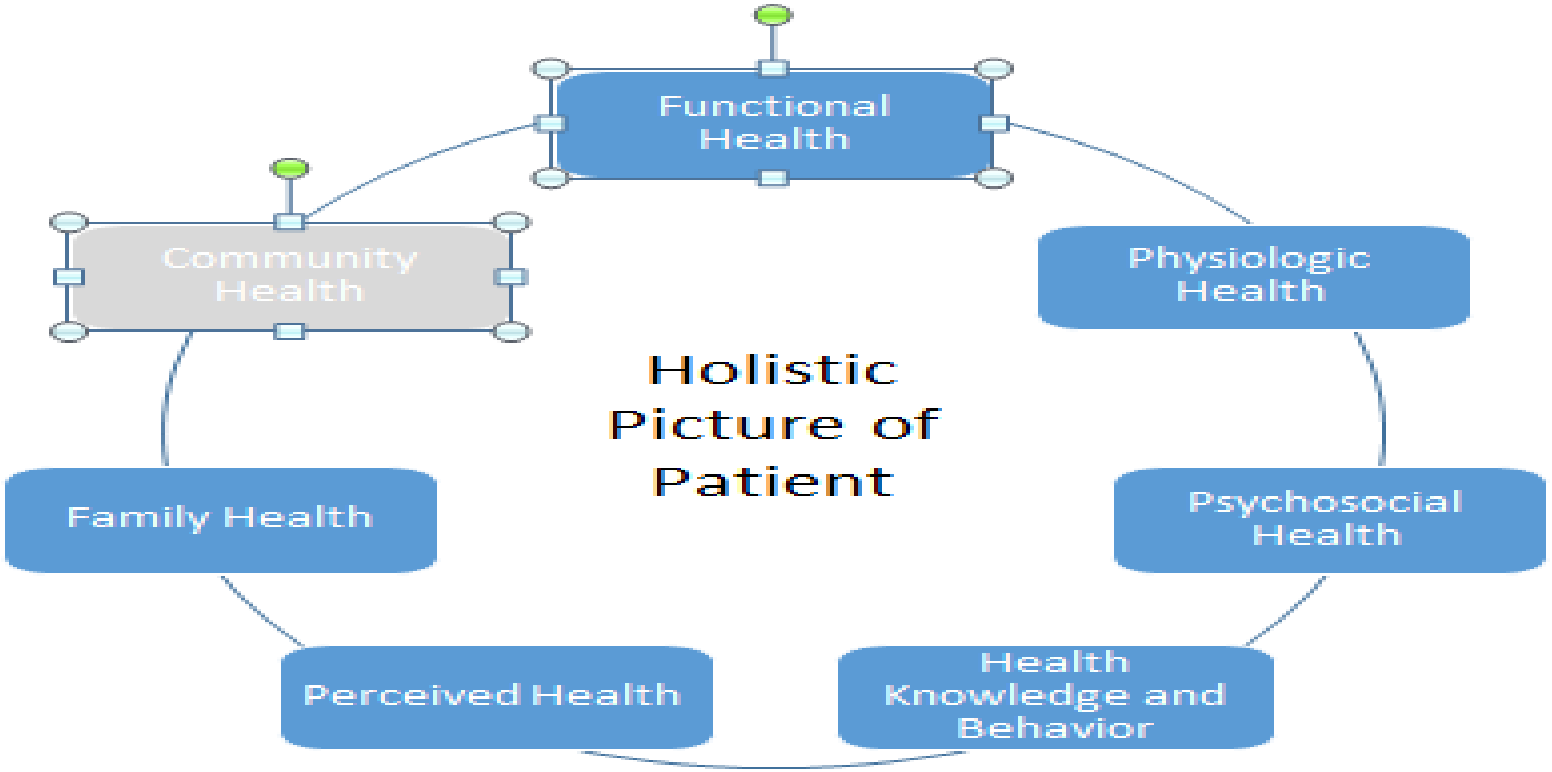
Nursing Outcomes Classification (NOC):

Moorhead, Johnson, Maas, & Swanson (2013)

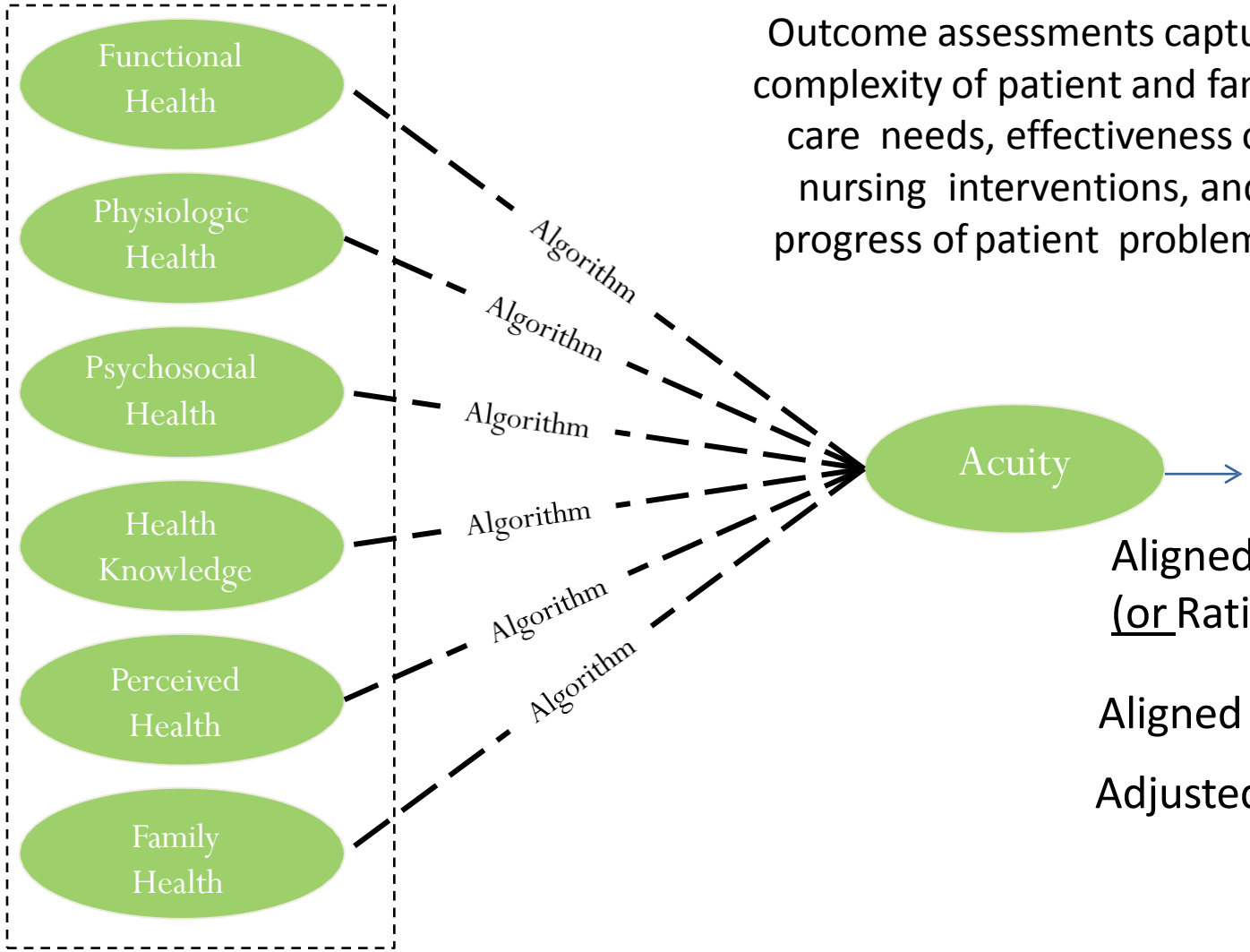
Nursing Outcomes Classification (NOC):

- Developed at the University of Iowa's College of Nursing, the Nursing Outcomes Classification (NOC) is a comprehensive, standardized classification of patient outcomes developed to evaluate the effects (outcomes) of interventions provided by nurses or other health care professionals.
- An outcome is a measurable individual, family, or community state, behavior or perception that is measured along a continuum and is responsive to nursing interventions.
- The outcomes are developed for use in all settings and can be used across the care continuum to follow patient outcomes throughout an illness episode or over an extended period of care.

Seven NOC Domains



Linking NOC outcomes to acuity



Outcome assessments capture complexity of patient and family care needs, effectiveness of nursing interventions, and progress of patient problems.

Aligned to HPPD (or Ratios)

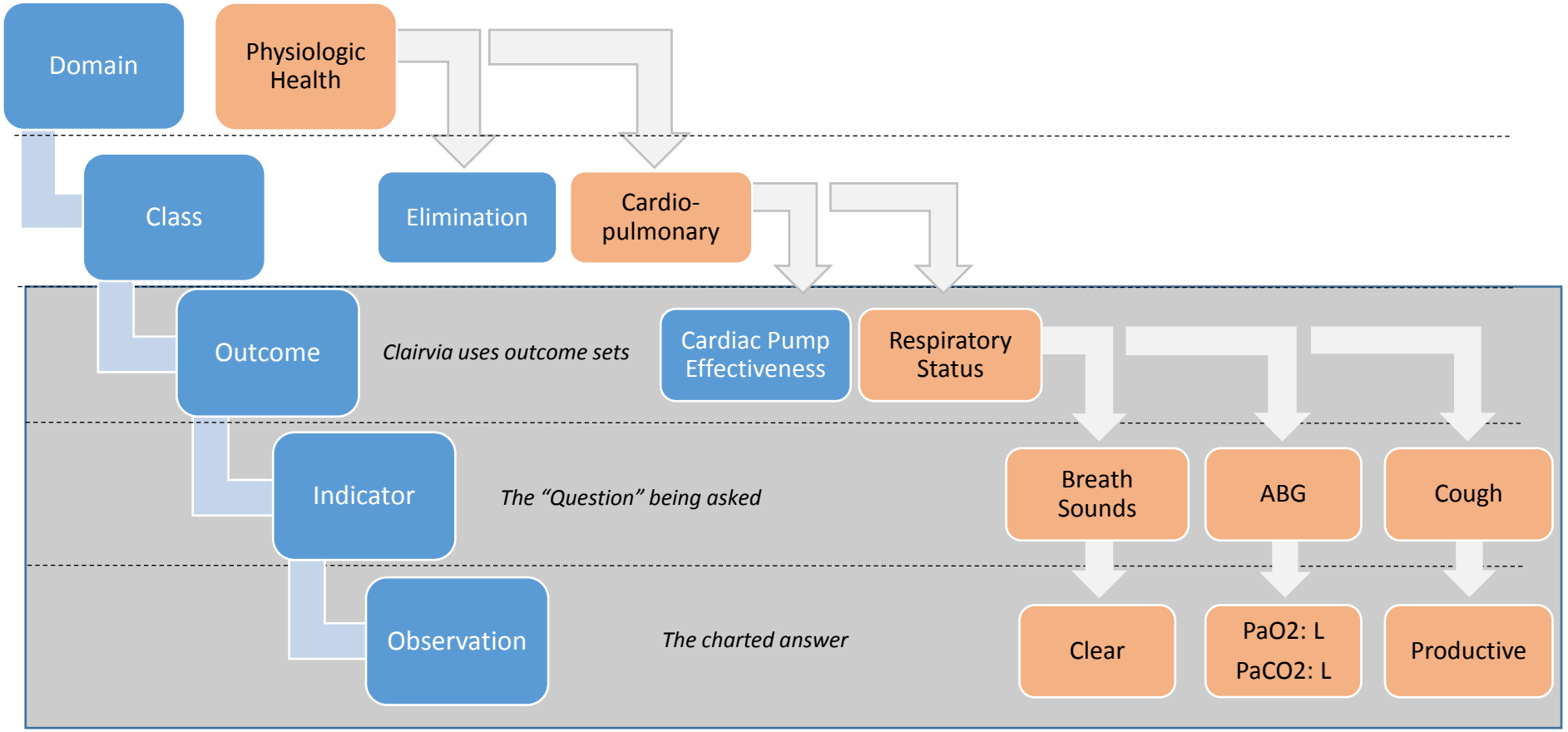
Aligned to LOS

Adjusted to ADTs

NOC Outcome Set

Sample Outcome Set:			
Domain	**Outcome Code**	**Outcome**	**Definition**
Knowl	1934	*Safe Health Care Environment	Physical and system arrangements to minimize factors that might cause physical harm or injury in the health care facility
Physio	0703	*Infection Severity	Severity of signs and symptoms of infection
Physio	1101	*Tissue Integrity: Skin and Mucous Membranes	Structural intactness and normal physiological function of skin and mucous membranes
Psych	1302	Coping	Personal actions to manage stressors that tax an individual's resources
Perc	2109	Discomfort Level	Severity of observed or reported mental or physical discomfort
Physio	0600	Electrolyte and Acid/Base Balance	Balance of electrolytes and non-electrolytes in the intracellular and extracellular compartments of the body
Family	2609	Family Support During Treatment	Capacity of a family to be present and to provide emotional support for an individual undergoing treatment
Physio	1015	Gastrointestinal Function	Ability of the gastrointestinal tract to ingest and digest food products, absorb nutrients, and eliminate waste
Physio	0504	Kidney Function	Ability of the kidneys to regulate body fluids, filter blood and eliminate waste products through the formation of urine
Knowl	1813	Knowledge: Treatment Regimen	Extent of understanding conveyed about a specific treatment regimen
Physio	0909	Neurological Status	Ability of the peripheral and central nervous system to receive, process, and respond to internal and external stimuli
Physio	1008	Nutritional Status: Food and Fluid Intake	Amount of food and fluid taken into the body over a 24-hour period
Physio	0415	Respiratory Status	Movement of air in and out of the lungs and exchange of carbon dioxide and oxygen at the alveolar level
Funct	0300	Self-Care: Activities of Daily Living (ADL)	Personal actions to perform the most basic physical tasks and personal care activities
Physio	0400	Cardiac Pump Effectiveness	Adequacy of blood volume ejected from the left ventricle to support systemic perfusion pressure
Physio	0407	Tissue Perfusion: Peripheral	Adequacy of blood flow through the small vessels of the extremities to maintain tissue function

NOC Hierarchy - Example



NOC: Respiratory Status (0415)

Definition: Movement of air in and out of the lungs and exchange of carbon dioxide and oxygen at alveolar level

Likert Scale

1	2	3	4	5
Severe deviation	Substantial deviation	Moderate deviation	Mild deviation	No deviation

Least Desirable

Most Desirable

Inter-Rater Reliability Audit Tool

Patient: [redacted]	**PEN:** [redacted]					
Location: [redacted]	**Admit Date: 01/07/2016 09:14**			**Acuity Level:**		
Room/Bed: [redacted]	**Projected Departure Date: 01/19/2016 19:39**			**Last Assessed:**		
Service: [redacted]				**Assessment Status:**		
Self-Care: Activities of Daily Living (ADL) Personal actions to perform the most basic physical tasks and personal care activities independently with or without assistive device	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No data
Cardiac Pump Effectiveness Adequacy of blood volume ejected from the left ventricle to support systemic perfusion pressure	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data
Tissue Perfusion: Peripheral Adequacy of blood flow through the small vessels of the extremities to maintain tissue function	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data
Respiratory Status Movement of air in and out of the lungs and exchange of carbon dioxide and oxygen at the alveolar level	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data
Kidney Function Ability of the kidneys to regulate body fluids, filter blood and eliminate waste products through the formation of urine	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No data
Electrolyte & Acid/Base Balance Balance of electrolytes and non-electrolytes in the intracellular and extracellular compartments of the body	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data
Infection Severity Severity of signs and symptoms of infection	Severe	Substantial	Moderate	Mild	None	No data
Neurological Status Ability of the peripheral and central nervous system to receive, process, and respond to internal and external stimuli	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No data
Nutritional Status: Food & Fluid Intake Amount of food and fluid taken into the body over a 24-hour period	Not adequate	Slightly adequate	Moderately adequate	Substantially adequate	Totally adequate	No data
Gastrointestinal Function Ability of the gastrointestinal tract to ingest and digest food products, absorb nutrients, and eliminate waste	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No data
Tissue Integrity: Skin & Mucous Membranes Structural intactness and normal physiological function of skin and mucous membranes	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No data
Coping Personal actions to manage stressors that tax an individual's resources	Never demonstrated	Rarely demonstrated	Sometimes demonstrated	Often demonstrated	Consistently demonstrated	No data

Inter-Rater Reliability Audit Tool

Patient: [redacted]	**PEN:** [redacted]	
Location: [redacted]	**Admit Date: 01/07/2016 09:14**	**Acuity Level:**
Room/Bed: [redacted]	**Projected Departure Date: 01/19/2016 19:39**	**Last Assessed:**
Service: [redacted]		**Assessment Status:**

Knowledge: Treatment Regimen Extent of understanding conveyed about a specific treatment regimen	No knowledge	Limited knowledge	Moderate knowledge	Substantial knowledge	Extensive knowledge	No data
Safe Health Care Environment Physical and system arrangements to minimize factors that might cause physical harm or injury in the health care facility	Not adequate	Slightly adequate	Moderately adequate	Substantially adequate	Totally adequate	No data
Discomfort Level Severity of observed or reported mental or physical discomfort	Severe	Substantial	Moderate	Mild	None	No data
Family Support During Treatment Capacity of a family to be present and to provide emotional support for an individual undergoing treatment	Never demonstrated	Rarely demonstrated	Sometimes demonstrated	Often demonstrated	Consistently demonstrated	No data

NOC ©2013 Mosby, Inc.

Assessed By: _____

Example of Clairvia Acuity Scoring Derived from Nursing Assessment

Self-Care: Activities of Daily Living (ADL) Personal actions to perform the most basic physical tasks and personal care activities independently with or without assistive device	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No data
Cardiac Pump Effectiveness Adequacy of blood volume ejected from the left ventricle to support systemic perfusion pressure	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data
Tissue Perfusion: Peripheral Adequacy of blood flow through the small vessels of the extremities to maintain tissue function	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data
Respiratory Status Movement of air in and out of the lungs and exchange of carbon dioxide and oxygen at the alveolar level	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data
Kidney Function Ability of the kidneys to regulate body fluids, filter blood and eliminate waste products through the formation of urine	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No data

Neurological Clinical Documentation—Acuity Tool Interface

Nursing Assessment in Soarian

Orientation / Mental Status	
Orientation Unable to Assess	Yes
Orientation	Intubated,Unable to assess
Behavior	Sedated
Orientation / Mental Status Comm ...	sedated on fentanyl. versed d/cd and propofol drip started as ordered

Acuity Score from Nursing Assessment

Neurological Status Ability of the peripheral and central nervous system to receive, process, and respond to internal and external stimuli	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No data

RespiratoryClinical Documentation—Acuity Tool Interface

Nursing Assessment in Soarian

Respiratory	
Effort	Respiratory effort is not labored
Breath Sounds comment	Chest is clear to auscultation
Right Upper Lobe	Diminished
Right Lower Lobe	Diminished
Left Upper Lobe	Diminished
O2 Saturation (%)	100%
O2 Del Method	Intubation
Oxygenation	O2 saturation is greater than or equal to 94% on room air
Suction	Endotracheal
Sputum Frequency	Q2-3 hrs
Sputum Color	Blood Tinged,Beige
Amount	Small
Consistency	Thick
Ventilator	Yes
ETT/Trach Location	Oral
Ventilator Anchor Device	Anchor Fast
Tube Size	8

Acuity Score from Nursing Assessment

Respiratory Status Movement of air in and out of the lungs and exchange of carbon dioxide and oxygen at the alveolar level	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data

CardioVascular Clinical Documentation—Acuity Tool Interface

Nursing Assessment in Soarian

Cardiovascular	
Rate/Rhythm	Patient in a sinus rhythm, HR 60-100
Rhythm Interpretation	SR HR 60's with PVC's.
Blood Pressure	BP MAP is >70
Blood Pressure	BP range of 170-120
Left Foot Edema	Non-Pitting
Left Ankle Edema	Non-Pitting
Right Foot Edema	Non-Pitting
Right Ankle Edema	Non-Pitting
Addl Comment	skin cool no edema
L Radial Pulse	Palpable
R Radial Pulse	Palpable
L Post Tibial Pulse	Dopplerable
R Post Tibial Pulse	Dopplerable
L Dosal Ped Pulse	Dopplerable
R Dosal Ped Pulse	Dopplerable
CVP	Yes
Arterial Line	

Acuity Score from Nursing Assessment

Cardiac Pump Effectiveness Adequacy of blood volume ejected from the left ventricle to support systemic perfusion pressure	Severe deviation from normal range	Substantial deviation from normal range	Moderate deviation from normal range	Mild deviation from normal range	No deviation from normal range	No data

Patient Acuity Assessment

Assessment Date: 04/14/2015 2:31 PM

Printable View

Patient: JONES, ANNE
Service: CC
Admit: 04/12/2015 2:25 PM
Projected Departure Date: 04/18/2015
Acuity Level: 11
Last Assessed: 04/14/2015 2:25 PM
Assessed By: SJonson

Outcome Label

Definition

Indicators

Tissue Perfusion: Peripheral - Windows Internet Ex...

Tissue Perfusion: Peripheral: Adequacy of blood flow through the small vessels of the extremities to maintain tissue function

Indicator Details

- Capillary refill fingers
- Capillary refill toes
- Sensation
- Skin color
- Muscle function
- Skin integrity
- Extremity skin temperature
- Carotid pulse rate
- Brachial pulse rate
- Radial pulse rate
- Femoral pulse rate
- Pedal pulse rate
- Systolic blood pressure
- Diastolic blood pressure
- Related Outcome: Cardiac Pump Effectiveness

Tissue Perfusion: Peripheral						No Data
Respiratory Status						
Electrolyte and Acid/Base Balance					Not compromised	No Data
Nutritional Status Food and Fluid Intake					Totally adequate	No Data
Self-Care: Activities of Daily Living (ADL)					Not compromised	No Data
Discomfort Level					None	No Data
Child Adaptation to Hospitalization					Consistently demonstrated	No Data
Family Support During Treatment	Never demonstrated	Rarely demonstrated	Sometimes demonstrated	Often demonstrated	Consistently demonstrated	No Data
Knowledge: Treatment Regimen	None	Limited	Moderate	Substantial	Extensive	No Data

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Save (Complete) | Save (Same as Last) | Save (Finish Later) | New | Cancel

Patient Acuity Assessment

Navigation Pane

Selection Criteria

Profile/Location

- 1N ICU
- 4S L&D
- 4W Newborn
- 4W Postpartum
- 5W MedSurg
- 7N Ped

Patient List

Room/Bed	Patient
606	Rogers, Bruce
607	Keely, Maria
608	Jones, Anne
609	Riker, Thomas
610	Long, Louis

Filter

Patients: Show Current

Patient Acuity Assessment

Assessment Date: 04/14/2015 2:17 PM

Printable View

Patient: JONES, ANNE	**Service:** CC	**Acuity Level:** 11
Location: ICU	**Admit:** 04/12/2015 2:11 PM	**Last Assessed:** 04/14/2015 2:11 PM
Room/Bed: 608	**Projected Departure Date:** 04/18/2015	**Assessed By:** SJonson

Cardiac Pump Effectiveness	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No Data
Tissue Perfusion: Peripheral	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No Data
Respiratory Status	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No Data
Electrolyte and Acid/Base Balance	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No Data
Nutritional Status Food and Fluid Intake	Not adequate	Slightly adequate	Moderately adequate	Substantially adequate	Totally adequate	No Data
Self-Care: Activities of Daily Living (ADL)	Severely compromised	Substantially compromised	Moderately compromised	Mildly compromised	Not compromised	No Data
Discomfort Level	Severe	Substantial	Moderate	Mild	None	No Data
Coping	Never demonstrated	Rarely demonstrated	Sometimes demonstrated	Often demonstrated	Consistently demonstrated	No Data
Family Support During Treatment	Never demonstrated	Rarely demonstrated	Sometimes demonstrated	Often demonstrated	Consistently demonstrated	No Data
Knowledge: Treatment Regimen	None	Limited	Moderate	Substantial	Extensive	No Data

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Save (Complete) | Save (Same as Last) | Save (Finish Later) | New | Cancel

Least Desirable *Likert Scale* Most Desirable

Patient Acuity Assessment Status

Patient Acuity Assessment Status

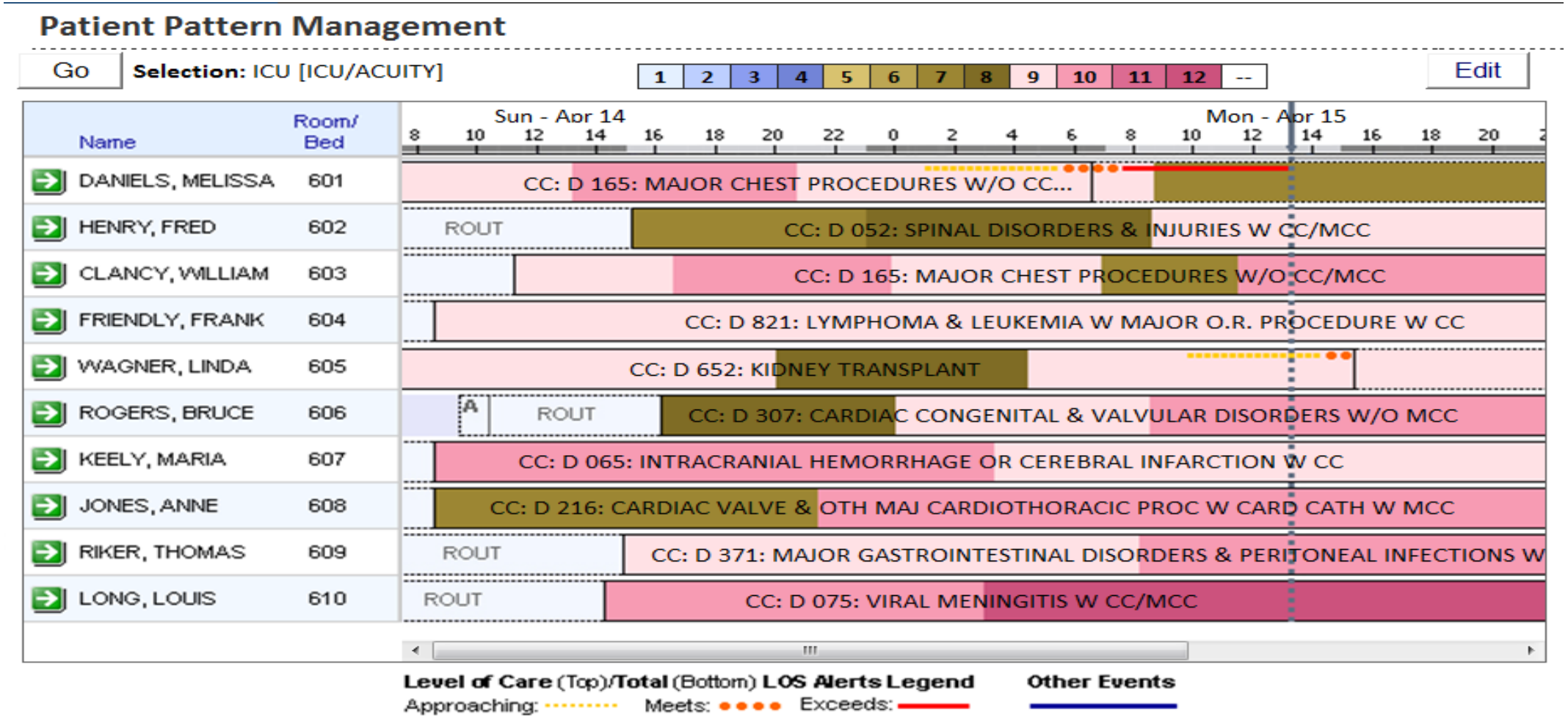
Acuity Summary	1	2	3	4	5	6	7	8	9	10	11	12	--
	--	--	--	--	--	--	1	--	4	3	--	1	1

Printable View

Hx	Print / All	Room/ Bed	Patient		Acuity	Modified By	Assessment Date/Time	Location	Status
		607	KEELY, MARIA 987654321			Interface		ICU	I
		601	DANIELS, MELISSA 123456789		7	Interface	04/14/2015 12:06	ICU	C
		602	HENRY, FRED 000111222		9*	Interface	**04/13/2015 16:17***	ICU	C
		603	CLANCY, WILLIAM 789456123		↑ 10	Interface	04/14/2015 08:20	ICU	C
		604	FRIENDLY, FRANK 741852693		9	Interface	04/14/2015 07:58	ICU	C
		605	WAGNER, LINDA 369258147		9*	Interface	**04/13/2015 18:23***	ICU	C
		606	ROGERS, BRUCE 876543210		10	Interface	04/14/2015 08:01	ICU	C
		608	JONES, ANNE 222333444		↓ 10	Jonson-RN	04/14/2015 14:11	ICU	C
		609	RIKER, THOMAS 111222333		9	Interface	04/14/2015 08:52	ICU	C
		610	LONG, LOUIS 999888777		12	Interface	04/14/2015 09:14	ICU	C

*Assessment more than 12 hours old

Patient Progression



Patient Acuity Assessment Status

Patient Acuity Assessment Status

Acuity Summary	1	2	3	4	5	6	7	8	9	10	11	12	--
	--	--	--	--	--	--	1	--	4	3	--	1	1

Printable View

Hx	Print / All	Room/ Bed	Patient		Acuity	Modified By	Assessment Date/Time	Location	Status
		607	KEELY, MARIA 987654321			Interface		ICU	I
		601	DANIELS, MELISSA 123456789		7	Interface	04/14/2015 12:06	ICU	C
		602	HENRY, FRED 000111222		9*	Interface	**04/13/2015 16:17***	ICU	C
		603	CLANCY, WILLIAM 789456123		↑ 10	Interface	04/14/2015 08:20	ICU	C
		604	FRIENDLY, FRANK 741852693		9	Interface	04/14/2015 07:58	ICU	C
		605	WAGNER, LINDA 369258147		9*	Interface	**04/13/2015 18:23***	ICU	C
		606	ROGERS, BRUCE 876543210		10	Interface	04/14/2015 08:01	ICU	C
		608	JONES, ANNE 222333444		↓ 10	Jonson-RN	04/14/2015 14:11	ICU	C
		609	RIKER, THOMAS 111222333		9	Interface	04/14/2015 08:52	ICU	C
		610	LONG, LOUIS 999888777		12	Interface	04/14/2015 09:14	ICU	C

*Assessment more than 12 hours old

Aligning Acuity for Balanced Assignment Making

Aligning acuity to patient assignment for balanced workloads

Find Caregivers | Assign: Charge | Continuity | Devices/Duties | Relief

Skill	Caregiver	# Pts	Acuity Avg	Avail Hours	Asgn Hours	% Asgned	Start Time	End Time
RN	ARN, KAREN	2	9.50	8.00	7.54	91.8	1500	2300
RN	CHAF Competencies: ACLS, ARN, Balloon Pump					0	1500	2300
RN	CORNETT, PATRICIA	2	8.50	4.00	3.38	84.5	1500	2300
RN	HEARN, BETHANY	2	9.50	8.00	7.54	91.8	1500	2300
RN	KHAN, NANCY	1	10.00	8.00	5.00	62.5	1500	2300
RN	PAGE, DONNA	2	9.00	8.00	7.34	91.8	1500	2300
RN	SOBHA, ABRAHAM	0	0.00	8.00	0.00	0	1500	2300
RN	WATERSON, REBECCA	2	8.50	4.00	3.38	84.5	1500	2300
UAP	FEATHERSTONE, HA...	9	9.22	8.00	6.50	81.3	1500	2300
SIT	WILSON, MARIE	1	10.00	8.00	8.00	100.0	1500	2300

Room Bed	Patient Name	Acuity	Care Hrs	Status		
RN	HEARN, BETHANY	AlertSec 0%RN			1500	2300
607	KEELY, MARIA	9	4.42			
DRG 065: INTRACRANIAL HEMORRHAGE OR CEREBRAL INFARCTION W CC						
RN	HEARN, BETHANY	Direct 100%RN			1500	2300
UAP	FEATHERSTONE, HANNAH	Direct 100%UAP			1500	2300
RN	ARN, KAREN	AlertSec 0%RN			1500	2300
608	JONES, ANNE	10	5.50			
DRG 216: CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W CARD CATH W MCC						
RN	HEARN, BETHANY	Direct 100%RN			1500	2300
UAP	FEATHERSTONE, HANNAH	Direct 100%UAP			1500	2300
RN	ARN, KAREN	AlertSec 0%RN			1500	2300
609	RIKER, THOMAS	10	5.50			
DRG 371: MAJOR GASTROINTESTINAL DISORDERS & PERITONEAL INFECTIONS W MCC						
RN	ARN, KAREN	Direct 100%RN			1500	2300
UAP	FEATHERSTONE, HANNAH	Direct 100%UAP			1500	2300
RN	SOBHA, ABRAHAM	AlertSec 0%RN			1500	2300
610	LONG, LEWIS	12	7.00			
CC: D 075: VIRAL MENINGITIS W CC/MCC						

Save | Reset | Cancel

Sample Outcome Set

Sample Outcome Set:			
Domain	Outcome Code	Outcome	Definition
Knowl	1934	*Safe Health Care Environment	Physical and system arrangements to minimize factors that might cause physical harm or injury in the health care facility
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