Massachusetts ICU Acuity Meeting

Organization of Nurse Leaders
Massachusetts, Rhode Island, New Hampshire & Connecticut

MHA MASSACHUSETTS HOSPITAL ASSOCIATION

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Acuity Tool Certification and Reporting Requirements

Acuity Tool Certification Template

Suggested Guidance

Acuity Tool Submission Details

Submitting your acuity tool for certification – DPH's Health Care Facility Reporting System (HCFRS).

- Coordinate internally to have one person who is familiar with HCFRS to submit the report (e.g., person that submits your SRE or MNO.

- Include a central contact so that DPH goes through one source for questions about your acuity tool.

Multiple Campuses

- Submit a separate filing for ICUs on separate campuses by facility site ID number.

Acuity Tool Certification Timeline

- Submission may begin on or after October 1, 2016 for all MA hospital ICUs and the 10 NICUs (other than AMCs).

- MHA and ONL provided guidance, but please be aware that DPH may release additional guidance.

- All acuity tools must be certified by January 31, 2017.

- All notifications will be uploaded into HCFRS, whether DPH is requesting additional information or if your tool has been certified and an approval letter has been posted.

- Submitting additional information - add responses to questions on your initial submission documents, and resubmit all acuity tool information with a cover letter outlining where the changes were made.

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Instructions for Completing the Acuity Tool Certification Template

Acuity Tool Description

I. Acuity Tool Description

Please **provide a description of your acuity tool** that includes the following:

- Overview of the tool – what it is and how it works.
- How the tool is used in conjunction with nursing judgement in determining an appropriate patient assignment.
- Key units of measurement (volume, acuity, discharges, transfers, nursing workload, etc.).

Section I. Example

I. Acuity Tool Description

QuadraMed AcuityPlus Inpatient methodology is comprised of three components:

   1) clinical indicators (see Exhibit A for list of clinical indicators and definitions)
   2) patient turnover, and
   3) activities requiring additional care (see Exhibit B for list of 1 Hour+ Activities and definitions)

The clinical indicators account for the variance in the patient's needs for nursing care and are allocated on weight based on the indicators' correlation to predicting care needs. The patient turnover component captures the relative care needs related directly to the admission, transfer and discharge process of patient care. Patient activities that require additional nursing care include both bedside procedures and events and instances where the RN needs to stay with a patient to meet their care needs when an off-unit procedure or activity is performed.

The validation of the AcuityPlus Inpatient Methodology included extensive analysis. Clinical nurses were used extensively in the development and testing of the methodology. The methodology was tested against several other measures of patient care including similar methodologies, patient work sampling and clinical expert estimates of patient care hour requirements. Transportability was insured through validation in various institution sizes, types, locations, and across various clinical specialties, patient ages and demographics. Specifically, multiple ICU units participated in the AcuityPlus validation study including CCU, Medical ICU, Surgical ICUs, Medical/Surgical ICUs, Cardiovascular ICU, Neuro ICUs, Trauma ICUs, Burn ICUs, Pediatric ICUs and Neonatal ICUs. The QuadraMed AcuityPlus conceptual approach of basing workload on patient needs allows for standardized measurement of patient workload regardless of location. This process is supported by educating staff on the appropriate application of the indicators in the various unit settings. Thus, the QuadraMed AcuityPlus system can be used to determine the patient's needs for care in all ICUs.

Methodology for Scoring Acuity

II. Methodology For Scoring Acuity

Points to Consider:

- How nurses document patient information in the acuity tool, what information is documented, and how it is uploaded/included in the acuity tool
- How the scores are calculated and key components in your acuity tool assessment
- Additional factors - overview of these factors and how they contribute to a patient's overall score.
- Existing standards or any evidence-based methodology?
- How frequently staff nurses perform the acuity assessments
  - Acuity tool must be used upon a patient's admission/transfer to the ICU, once per shift, and at other intervals or circumstances as specified in the acute hospital's policies
- How the charge nurse interfaces with staff nurses to ensure knowledge of patient acuity
- How are indicators scored and how will they be used to calculate the patient assignment?
- Range of scores
- Number of required RN care hours required based on acuity tool's final score (amount of patient care time required based on acuity tool score)
- Explain how each patient's score translates into a patient assignment.

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Section II. Example

II. Methodology For Scoring Acuity

Cerner Clairvia Outcomes Driven Acuity 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 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).

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.

Cerner Clairvia Outcomes Driven Acuity methodology is a combination of patient assessment, standardized outcomes terminology, clinical reasoning, decision rules, and budgetary decision making. Cerner Clairvia Outcomes Driven Acuity 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 Cerner Clairvia Outcomes Driven Acuity, 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 Cerner Clairvia Outcomes Driven Acuity system application links the electronic patient clinical data with NOC outcomes takes place behind the scenes and is transparent to the nurse.

Indicators Included

III. Indicators Included	
Clinical Indicators of Patient Stability	
X 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	
Family and other support	
Care coordination	
Transitional care and discharge planning	
*Note: Clinical complexity is a composite of all defined indicators.	

Please put an X in the box next to each indicator that is included in your acuity tool and explain how these elements have been incorporated into the tool.

- If your acuity tool does not include a particular indicator, please explain why and how your tool uses other factors in place of the one that is not in your tool.
- If each included indicator is not explicitly shown in your supporting documentation, please write a sentence or two explaining how the indicator is incorporated.
- Please note that while clinical complexity is truly a composite of various indicators, you will need to write a description as to how this indicator is included in your acuity tool.

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Section III. Example

III. Indicators Included	
Clinical Indicators of Patient Stability	Please see Exhibits A, B and C for screen shots of AcuityPlus indicators, indicator definitions and patient classification screens as viewed by a staff nurse who classifies the patient.
X Physiological status	
X Clinical complexity*	The QuadraMed AcuityPlus patient classification process is a composite of all clinical indicators. Complexity of Care is a measurement captured by the patient classification process. The Complexity of Care Measure provides a measure of the patient's needs for professional RN care within the required hours of care. This information may be used in the patient assignment process, facilitating the assigning of the most experienced and skilled staff to the patients with the highest complexity of care measure.
X Related scheduled procedures	
X Medications and therapeutic supports	
Indicators of Staff Nurse Workload	
Patient age	The patient's age is captured in the software via the interface to the electronic admission, discharge and transfer system; the gestational age of neonates is not explicitly captured though it is required knowledge for the assigned care team. The QuadraMed AcuityPlus methodology does not require a patient's age in order to make a determination of the patient's need for nursing care. For example, Infant A, 32 weeks gestation may have pulmonary issues requiring ventilator support where Infant B, 32 weeks gestation also has pulmonary issues, yet doesn't require ventilator support. Additionally, the infants may respond to treatment differently.
X Patient and family communication skills and cultural/linguistic characteristics	
X Patient and family education	
X Family and other support	
X Care coordination	
X Transitional care and discharge planning	
*Note: Clinical complexity is a composite of all defined indicators.	

Meeting the unique care needs of patient populations in each ICU

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	

List the name and type of ICU (one ICU in each box), and provide a brief example of how your acuity tool meets the needs of each patient population in each unit. This could include any of the following:

- Examples of procedures performed in each ICU and how the acuity tool was able to meet the needs of a patient in each unit.
- Anonymous patient examples that include the patient's needs, circumstances, and care provided. This could include information a staff nurse enters into the acuity tool and the rationale for selecting such indicators.
- Patient care examples with adjustments to points assigned or the amount of time allotted within the acuity system to perform certain procedures in different ICUs.

Section IV. Example

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

Menino 5E-MICU is a 12 bed medical unit specializing in the care of patients with a wide variety of complex medical issues. Nurses care for patients with multi system failure including respiratory disease, requiring ventilation, sepsis, GI bleeds, sickle cell crisis, diabetes management and pulmonary hypertension. Specific nursing interventions, orders, flow sheet rows and/or flow sheets were built to measure the clinical complexity and workload for the unique population in the MICUs. Examples include, but are not limited to Continuous Renal Replacement flow sheet (CRRT), Hypothermia for cardiac arrest, Blakemore Tube, Neuro Muscular Blockade, Moderate Sedation, and Severe Alcohol withdrawal protocol.

Proger 6 North—NCCU:
In the NCCU, Cerner Clairvia 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 their 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.

Supporting Documentation

Supporting documentation could include any of the following:

- Screenshots of your acuity tool (paper or electronic) with de-identified patient information.
    - Dashboards, where information is entered, what staff nurses will see, etc.
- List of indicators with descriptions showing how each indicator in the template is included in the acuity tool.
- Charts or diagrams showing the number of points or hours assigned based on various indicators.
- Options for nurses to select with explanations on how their input contributes in the determination of a patient assignment.
- Slides or background information related to your acuity tool framework, scoring methodology, and/or patient classification system.

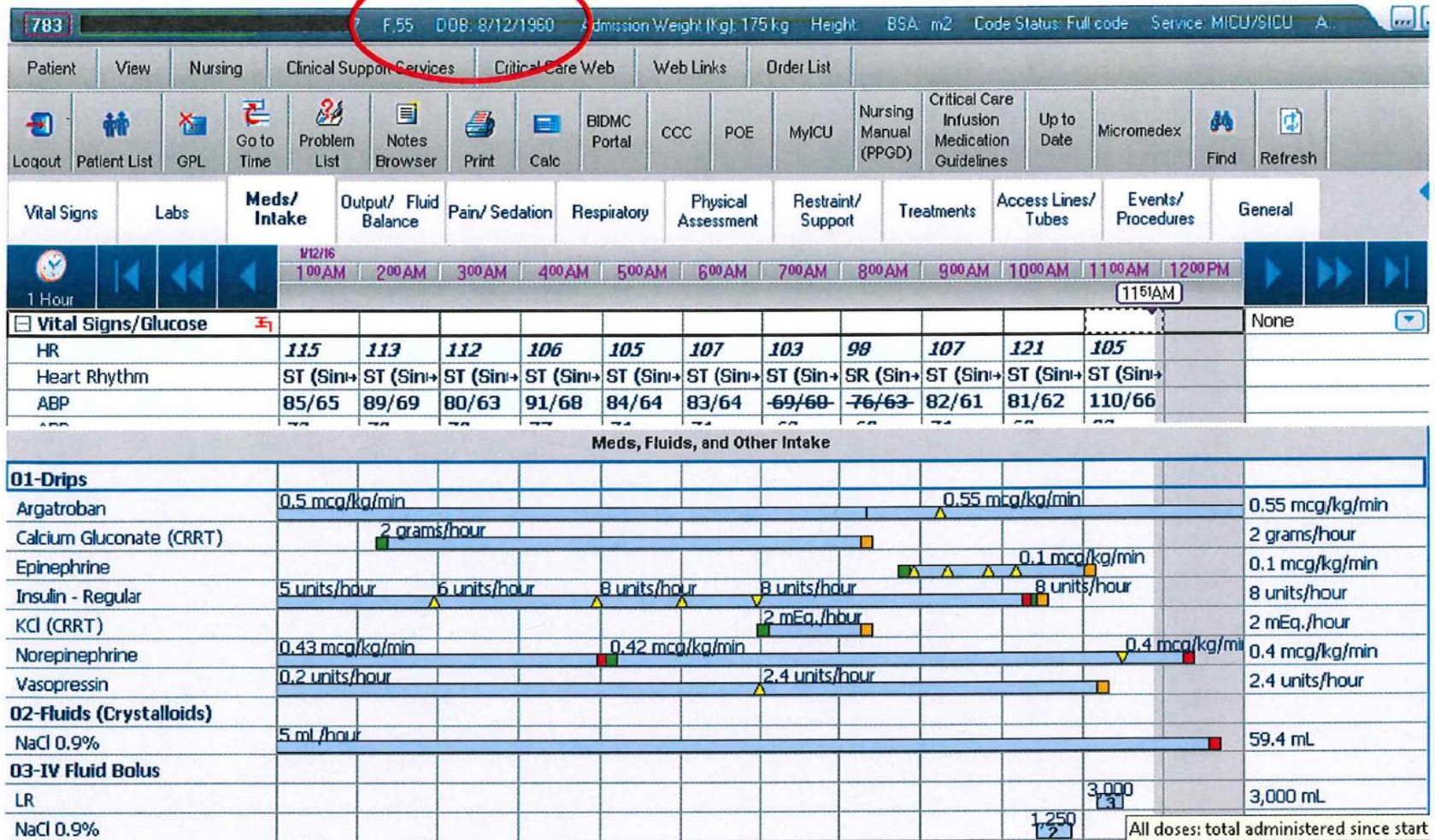# Documentation Example

KRONOS®

QUICK REFERENCE GUIDE: THE ASSIGNMENTS SCREEN

The Assignments screen gives users a holistic view of the patients assigned to each staff member, offers another location for classifying patients, and provides an additional option (drag-and-drop) for assigning patients and tasks.

Documentation Example

1. Multiple Vasoactives in MICU

General Operational Considerations

Educating ICU Staff – We recommend an open and transparent education process in which all staff in the ICU (nurses, physicians, and other ancillary staff) are fully briefed on what you have submitted and how the process works.

Appropriate Documentation – While DPH currently does not require information regarding the advisory committee(s) and the hospital's rationale for selecting an acuity tool as part of the certification process, we strongly recommend developing a process to receive input from staff nurses and other committee members, and to meet other requirements specified in the HPC regulations to make sure you are in compliance.

Reporting ICU Nurse-to-Patient Ratios

Suggested Guidance

Nurse-to-Patient Ratio Calculation Template Instructions

Institution Name:	
Hospital Contact Name:	
Title:	
E-mail Address:	
Phone Number:	

Patient ADC = Number of patients over a 24 hour period. Divide total days by number of days in the period. Note: Use Midnight Census

Staff RN ADC = Number of nurses over a 24 hour period. Divide total worked hours per day by 24. Calculate time based on work productive hours only.

Reporting Period:	

Name of ICU	Type of ICU	Total Patient Days for Period	Number of Days in Period	Average Daily Patient Census	Total Staff Nurse Worked Hours for Period	Total Staff Nurse Worked Hours per day	Average Daily Staff Nurse Census	Average Daily Staff Nurse-to-Patient Ratio

Instructions: Please list the name and type of each ICU at your facility, and then enter all required information in the yellow highlighted boxes only. Once all information in the yellow boxes has been entered, the spreadsheet will calculate your quarterly nurse-to-patient ratio for you. This information will populate into the second worksheet that should be sent to DPH.

*Please note that a staff nurse is defined as "a Registered Nurse providing direct patient care in an ICU," and could include temporary agency nurses, travelers, on-call, etc. No other nursing staff should be included in this calculation.

Nurse-to-Patient Ratio Calculation Template Instructions

Institution Name:	
Hospital Contact Name:	
Title:	
E-mail Address:	
Phone Number:	

Reporting Period:				
Name of ICU	**Type of ICU**	**Average Daily Patient Census**	**Average Daily Staff Nurse Census**	**Average Daily Staff Nurse-to-Patient Ratio**

Nurse-to-Patient Ratio Calculation Template Instructions

Institution Name:	Hospital
Hospital Contact Name:	Jane Smith
Title:	CNO
E-mail Address:	jsmith@hospital.org
Phone Number:	888-888-8888

Reporting Period:	**January 1, 2016 - March 31, 2016**							
Name of ICU	**Type of ICU**	**Total Patient Days for Period**	**Number of Days in Period**	**Average Daily Patient Census**	**Total Staff Nurse Worked Hours for Period**	**Total Staff Nurse Worked Hours per day**	**Average Daily Staff Nurse Census**	**Average Daily Staff Nurse-to-Patient Ratio**
ICU 1	MICU	1751	92	19	29,731	323	13	1 : 1.41

Patient ADC = Number of patients over a 24 hour period. Divide total days by number of days in the period. Note: Use Midnight Census

Staff RN ADC = Number of nurses over a 24 hour period. Divide total worked hours per day by 24. Calculate time based on work productive hours only.

Nurse-to-Patient Ratio Calculation Template Instructions

Institution Name:	Hospital
Hospital Contact Name:	Jane Smith
Title:	CNO
E-mail Address:	jsmith@hospital.org
Phone Number:	888-888-8888

Reporting Period:	January 1, 2016 – March 31, 2016			
Name of ICU	**Type of ICU**	**Average Daily Patient Census**	**Average Daily Staff Nurse Census**	**Average Daily Staff Nurse-to-Patient Ratio**
ICU 1	MICU	19	13	1 : 1.41

ICU Staffing Information: Submission Details

All hospitals with an ICU must submit quarterly ICU staff nurse-to-patient ratios to DPH via the Health Care Facility Reporting System (HCFRS).

- All acute care hospitals should submit data regardless of whether they currently have a certified acuity tool.
- Each hospital must submit a separate HCFRS incident report for each individual ICU within the hospital. There will be a different case number for each individual ICU, so if your facility has more than one ICU, please provide the name of the ICU in the incident narrative section and submit a separate report for each unit.
    - Note that DPH is considering changes to the reporting process.

The following information should be manually entered in the incident narrative section:

Reporting Period (i.e. 1/1/2016 – 3/31/2016)
   1. Average daily patient census;
   2. Average daily staff nurse censes; and
   3. Average daily staff nurse-to-patient ratio, which is found by dividing the average daily patient census by the average daily staff nurse census.

* Please note that a staff nurse is defined as a "Registered Nurse providing direct patient care in an ICU," and does not include other nurses within a unit.

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Reporting Nurse-to-Patient Ratios

Quarter	Reporting period	Due to DPH	Post on hospital website
1st Quarter	Jan – Mar 2016	April 15, 2016	April 22, 2016
2nd Quarter	Apr – Jun 2016	July 15, 2016	July 22, 2016
3rd Quarter	Jul – Sept 2016	October 15, 2016	October 22, 2016
4th Quarter	Oct – Dec 2016	January 15, 2017	January 22,2017

- Ratios must be posted on the acute hospital's website within 7 days of submitting this information to DPH.

- Existing regulations do not specify where or how the ICU data should be displayed on each acute hospital's website, but suggested webpage locations include:
    - critical care webpage
    - quality data webpage
    - other hospital webpage

- Providers may want to simply post the grid as presented in the second tab of the worksheet.

Reporting ICU Quality Measures

Update

ICU Quality Measures

HPC Quality Measures

- CLABSI (NQF #139)
- CAUTI (NQF #138)
- Pressure Ulcers (NQF #0201)
  - *Please note, providers should still use NQF definition for this measure.*
- Patient Falls with Injury (NQF #0202)