TO: Eric Sheehan JD, Interim Director

Bureau of Health Care Safety and Quality

FROM: Kellie Smith, Associate Chief Nurse Adult Critical Care

Mary Jo Pedulla, Associate Chief Nurse Maternal Child Health

Boston Medical Center

DATE: February 29, 2016

RE: Acuity Tool Submission for Intensive Care Unit Registered Nurse Staffing

Thank you for your comments and questions regarding our submission to the DPH. We are writing to clarify our initial submission and to respond to your questions.

1. **The hospital organization has intensive care units that are located at two separate addresses and have separate facility identification numbers. An individual acuity tool must be submitted under each of the appropriate facility identification numbers.**

   Boston Medical Center is submitting two acuity tools for certification for each of their campuses, the Menino Pavilion and the East Newton Campus.

2. **The acuity tool does not specify how scores will be used to calculate the number of nurses or nursing hours required to care for the patient. How do low-moderate, transition or high translate to nurse staffing hours?**

   Patients scoring in the high work load category may be associated with a single patient assignment. Patients scoring in the medium/transition zone may be considered for a single patient assignment or a double patient assignment. A Low workload/acuity score may be reflective of a double patient assignment. In any of the workload categories described above nursing judgment is key when planning care for these patients to ensure that the patient's clinical and psycho social needs are met. We recognize that nurses are the clinical experts and the acuity/workload score is a guide and does not replace sound nursing assessment and judgment of a patient's intensity of needs.

3. **The acuity tool does not specify a need for care coordination indicator. Does one of the existing indicators address care coordination or does it need to be added?**

   Admissions, discharges and transfers in and out of the ICU's will automatically trigger points towards the nurse's total workload/acuity score. Point values range from 2-100. For example each patient admitted to the ICU will trigger 100 points.

Care coordination needs, education for the patient/family, and or patient/family support, will all elicit points upon nursing documentation in Epic. For example education assessment, barriers and linguistic needs will trigger point values.
Family support/care coordination scores can range from 1-4 depending on the length of time the nurse spends with the family and or multidisciplinary team.

Transitional care planning, discharge/placement arrangements and or complicated patient issues involving interdisciplinary meetings will trigger points when the nurse documents the meeting in the electronic medical record for example: 1 point: Less than 15 minutes , 2 points: 15 to 30 minutes, 3 points: 30 to 60 minutes, 4 points greater than 60 minutes.

Respectfully Submitted 2/29/16

Intensive Care Unit: Acuity Tool Certification

Institution Name:	*Boston Medical Center*
Hospital Contact Name: **Title:** **E-mail Address:** **Phone Number:**	*Kellie Smith MSN, RN, NE-BC* *Associate Chief Nurse Critical Care* *Kellie.smith@bmc.org*
Name of Proposed Acuity Tool:	*Epic*
Acuity Tool Format:	*Electronic*
Intensive Care Units in which the acuity tool will be deployed:	*East Newton Campus 3W-SICU* *East Newton Campus 8N-CCU*

I. Acuity Tool Description

The Epic Nursing Workload Acuity Scoring System is a tool designed to help nursing departments make more informed, efficient staffing decisions. The system works by assigning individual points to specific nursing interventions, assessments and physician orders, which provide workload measurement. The ICU Advisory Nursing Committee requested a 5 point scale be allocated to nursing interventions, assessments and physician orders. A score of 1 requires the lowest workload, and a score of 5 requires the highest workload. These points are captured when a physician places an order in the system and when a nurse documents the assessment or intervention. Behind the scene the points are tallied for a total score at defined periods during the day. The total score reflects the patient's acuity and workload. The acuity and workload can be classified as low, medium and high and is based on real time documentation.

In March of 2016 the Epic Nursing Workload Acuity score will flow over to Kronos Optilink®, which will track workload measurement including patient-staff assignments, outcome tracking and staffing effectiveness measurement, prospective insight into real-time decision support for precise deployment of staff, and patient-staff assignment compliance monitoring. Kronos Optilink will be our data storage system.

II. Methodology for Scoring Acuity

At Boston Medical Center, an ICU Advisory Committee was formed representing staff nurses from each of the adult, pediatric and neonatal ICU's. Collaboratively we defined individual scores for nursing assessments, interventions, procedures, medications and physician orders that are unique to each patient population; adult, pediatric and neonatal. In addition to the unique individual scores,

the total score defines a low, medium and high nursing workload as well as acuity. The workload and acuity measurement is unique to the patient population in each of the adult ICU's as well as the PICU and NICU. Each patient will receive a score. Scores are calculated by an automatic extraction from the Epic ICU online documentation system.

Adult ICU

In the Adult ICU a score greater than 221 represents a high workload. This patient is often very unstable requiring frequent nursing assessments and interventions and may be associated with a single patient assignment

A score of 180 to 220 is the transition zone. Patients in this zone very often represent medium work load. Patients scoring in the medium/transition zone may be considered for a single patient assignment or a double patient assignment.

A score of less than or equal to 179 represents a low workload. A Low workload/acuity score may be reflective of a double patient assignment.

All ICUS

In any of the zones described above nursing judgment is key when planning care for patients to ensure the patient's clinical and psycho social needs are met.

The score in all ICUS will be evaluated by the charge nurse and nurse manager/nurse manager designee every 4 hours, to determine staffing. We recognize that nurses are the clinical experts and the acuity score is a guide and does not replace sound nursing assessment and judgment of a patient's intensity of needs.

In any circumstance where the acuity score is inconsistent with the clinical nurses assessment of the overall patients complexity and clinical needs, the conflict concerning the ratio of nurse to patient, will be resolved in consultation with the nurse manager and or Off Shift Nurse Manager (OSNM), charge nurse, and the clinical nurse providing care for the patient.

We recognize that each patient population may have some of the same care needs and some that are very different. We have customized flow sheets and rules to meet the complexity of our patient needs in each of the ICU's.

III. Indicators Included

Clinical Indicators of Patient Stability		
☒	Physiological status	Physiological status and clinical complexity is measured by the clinical data the nurse enters into the electronic health record (EHR) as part of their documentation. Epic uses the nursing assessments, interventions, procedures, orders, medications and lab values to assess patient workload.
☒	Clinical complexity*	See above

☒	Related scheduled procedures	Moderate Sedation, Off the unit test, requiring continuous nursing assessment and monitoring for the duration will elicit points. In unit tests or procedures such as central line placement, arterial line placement, will also trigger points.
☒	Medications and therapeutic supports	All medications and therapeutic supports are included in the nurse's workload/acuity score. For example on the adult ICU tool; Highly Complex Medication Infusion Orders: will receive 5 pts for each order, an example is Norepinephrine, Complex Medication Infusion Orders: will receive 4 points for each order an example is Diltiazem, Moderate Medication Infusion Orders: will receive 3 points for each order an example is lidocaine, Simple Medication Infusion Orders: will receive 2 points for each order an example is protonix. **Please refer to the attached tools for the PICU and NICU point values.** CRRT, TAVR, IABP, Impella device, Temperature management device (Artic Sun), Whole Body Cooling, lines, drains and airways will trigger flow sheets, each flow sheet will trigger scores once the nurse documents her interventions.
	Indicators of Staff Nurse Workload	
☒	Patient age	The patient's age is captured in the electronic health record.
☒	Patient and family communication skills and cultural/linguistic characteristics	The psycho social care and coordination needs related to communication skills, cultural and linguistic characteristics, need for education and support family/patient and transitional care planning will be abstracted from the nurse's documentation. Scores can range from 1 to 5 points depending on the length of time a nurse spends with the family. Please see the attached document.
☒	Patient and family education	Please see the attached Document
☒	Family and other support	Please see the attached Document
☒	Care coordination	Admissions, discharges and transfers in and out of the ICU's will automatically trigger points towards the nurse's total workload/acuity score. Point values range from 2-100. For example each patient admitted to the ICU will trigger 100 points. Care coordination needs, education for the patient/family, and or patient/family support, will all elicit points upon nursing documentation in Epic. For example education assessment, barriers and linguistic needs will trigger point values. Family support/care coordination scores can range from 1-4 depending on the length of time the nurse spends with the family and or multidisciplinary team.
☒	Transitional care and discharge planning	Transitional care planning, discharge/placement arrangements and or complicated patient issues involving interdisciplinary meetings will trigger points when the nurse documents the meeting in the electronic medical record for example: 1 point: Less

		than 15 minutes , 2 points: 15 to 30 minutes, 3 points: 30 to 60 minutes, 4 points greater than 60 minutes.

*Note: Clinical complexity is a composite of all defined indicators. Please see BMC's Epic Nursing Workload Acuity Scoring System for all point scales.

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

ENC 3W-SICU; is a 16 bed unit specializing in the care of patients immediately following a variety of surgical procedures including but not limited to cardiac, thoracic, vascular, ears, nose, throat, abdominal and Nuero surgery. Patients require invasive pressure monitoring and ventilator support. 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 SICU. Examples include but are not limited to; Continuous Renal Replacement flow sheet (CRRT), Intracranial pressure monitoring, External Ventricular drain, Hypothermia for Neuro patients, Intra-Aortic Balloon Pump (IABP), External Pace makers, Moderate Sedation, Cardiothoracic patient population, Lumbar drains, complex dressing changes	***ENC 8N-CCU is a 12 bed unit specializing in the care of critically ill patients with acute coronary syndromes, advanced heart failure and complex arrhythmias. 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 CCU. Examples include but are not limited to; Continuous Renal Replacement flow sheet (CRRT), Hypothermia for cardiac arrest, Intra-Aortic Balloon Pump (IABP), Impella Device, External Pacemakers, Flolan, Moderate Sedation, Severe alcohol withdrawal protocol, proning***

Please see the attached supporting documents.

Adult ICU Epic Workload Acuity Scoring System

Table of Content

ADT

Admission within last 12 hours	**100 points**
Discharge Home	**2 points**
Discharge to Facility	**3 points**
Transfer Out (Transfer Medication Rec)	

Orders

Order	Point
Calorie Count or Carb Count	**1 point**
Comfort Care	**3 points**
CCRT Order	**5 points**
ECG Order	**2 points**
End Tidal CO2 Order	**1 point**
Feeding Order	**1 point:** Adult Tube Feeding Continuous or Adult Tube Feeding Cyclic **2 points:** Adult Tube Feeding Bolus
Fluid Restriction Order	**1 point**
Free Water – Enteral Use Only	**1 point**
Glucose Monitoring (Accucheck POCT)	**1 point for each finger stick obtained retrospectively in the last 24 hours.**
Incentive Spirometry Order	**1 point**
Isolation Order	**1 point:** Droplet Isolation Status: **2 points:** Airborne Isolation Status **3 points:** Contact Isolation Status or Contact and Airborne Isolation or Contact and Droplet Isolation **4 points:** Contact Plus Isolation Status or Contact Plus & Airborne Isolation Status or Contact Plus & Droplet isolation status **220 points:** Enhanced Isolation Status (Ebola)
Lab (Specimen Orders to Collect): Blood	**1 points:** If patient has central line **3 points:** If no central line
Lab (Specimen Orders to Collect): Blood Culture	**4 points** (2 points per stick)
Lab (Specimen Orders to Collect): Urine	**1 point:** foley **2 points:** Straight Cath (Sterile): **2 points**
Lab (Specimen Orders to Collect): Swab (wound, MRSA, Flu)	**1 point** for each swab order
Lab (Specimen Orders to Collect): Stool	**1 point** for each order
Lab (Specimen Orders to Collect): Sputum	**1 point** for each order
Orthostatic Vital Signs	**2 points**
Peritoneal Dialysis Order	**3 points**
Prone Position Order	**5 points:**
Restraint Order (Violent or Non-Violent)	**1 point**
Shivering Intervention	**1 point**
Strain all urine	**1 point**
Tap water enema	**2 points**
Thoracic-Lumber-Sacral Orthosis	**1 point**

Problem List

If Ketogenic Problem: Ketogenic Monitoring or Ketogenic Diet	**5 points**

MAR Documentation

New Bag: Look retrospectively for 24 hours	**1 point:** for every new bag documented (24 hours)
Dual Handoff: Look retrospectively for 24 hours	**1 point:** for each dual handoff documented (24 hours)
Rate/Dose Change: Look retrospectively for 24 hours	**1 point:** for each rate/dose change documented (24 hours)
Medication Orders Due: Look prospectively for 24 hours	**1 point:** for each oral medication order or Topical or Intra-Nasal, inhalation **2 points:** for each Parenteral/ Intravenous or Subcutaneous or Rectal or Intramuscular or inhalation or Gastric/Jejuneostomy Tube/Tenchoff Tube **3 points:** for each Intra Arterial or Nerve Block Route or Epidural
Highly Complex Medication Infusion Orders: Dopamine, Dobutamine, Norepinephrine, Epinephrine, Phenylephrine, Nitropride, Nitro, Isopril, Insulin , Cisatracurium, Vecuronium, Rocuronium, TPA	**5 points:** for each order
Complex Medication Infusion Orders: Vasopressin, milrinone, nicardipine, esmolol, diltiazem, aminodarone, labetalol, verapamil, dexmedetomidine, All IV Heparin, IVIG, pentobarbital, Flolan, Remogolin, PCA	**4 points:** for each order
Moderate Medication Infusion Orders: Propanamide, Lidocaine, Furosemide, conivaptan, deferoxamine, eptifibatide (Integralin), fentanyl, foscarnet, midazolam, milrinone, morphine, ativan, naloxone, nesiritide, propofol, zidovudine, TPN	**3 points:** for each order
Simple Medication Infusion Orders: Protonix, glucagon, aminophylline, theophylline, aminocaproic acid, methyl prednisone, octreotide, bivalrudin	**2 points:** for each order
Inhaled Flolan	**4 points**
Haldol: IV	2 points
Peritoneal Dialysis Fluids on the MAR	1 point

Flowsheet Data/Education Activity/Notes/Narrator

Assessment Flowsheet Look retrospectively for 24 hours	**0.5 point:** For every "X" documented during previous 24 hours **2 points:** For every head to toe assessment during previous 24 hours
Assessment Flowsheet: (Genitourinary Section): Bladder Scan Row	**1 point**
Assessment Flowsheet (Neurological Section): Train of Four	**2 points**
Assessment Flowsheet (Neurological Section): Sedation Vacation	**3 points:** Yes
Assessment Flowsheet (Glasgow Coma Scale)	**1 point:** for each GCS assessed and documented more than 6 times in a 24 hour period
Assessment Flowsheet (Pacemaker)	**5 points:** if have documented temporary pace maker type in the past 24 hours. No extra points for documenting multiple times in a 24 hours period
Assessment Flowsheet (Respiratory Section): Vent Mode Row (24 hours)	**2 points:** VC/AC: **3 points:** Vent CPAP or MMV or PS or SIMV/PC or SIMV/PS or SIMV/PRVC or SIMV/VC **4 points:** APRV/Bi-level or PC/AC or PRVC/AC **5 points:** HFJT or HFOV or Nitric Oxide
Assessment Flowsheet (Respiratory Section): Respiratory Intervention Row (24 hours)	**1 point:** Chest Physiotherapy (Bed) or Turn Cough and Deep Breath or Oral Suctioning or Airway Suctioning o Peak Flows **2 points:** Nasal Suctioning or Diagraphragmatic Pacer **3 points:** Quad Cough **Chest PT Manual** 1 point: Frequency q 4hours 2 points: Frequency q 2 hours 4 points: Frequency q1hour **Points given each time this is documented**
Assessment Flowsheet (Skin/Wound): Does patient have wound VAC- Yes	**1 point:** for each time a nurse documents in any of the rows associated with wound vac in a 24 hour period
Blood Administration Flowsheet	**3 point:** for every unit to transfuse **3 points:** if blood transfusion reaction was suspected
CRRT Flowsheet:	**5 points:** every time document the flow rates in CRRT flowsheet in 24 hour period
Daily Cares Flowsheet: Precautions	**1 point:** Aspiration Precautions or C-Spine Precautions or Delirium Precautions or Difficult Airway Precautions or Fall Precautions or Hip Precautions (nsg to post anterior / posterior at bedside) or Laryngectomy Precaution or Protective Care Precautions (neutropenia/ immunosuppressed) or Radiation Precaution or Safety Precautions or Seizure Precautions or Stem Cell Transplant Precautions or Suicide Precautions or Victim of Violence Precautions

Daily Cares Flowsheet: Level of Assistance and Complex ambulation	**1 point:** Stand-by assist, set up cues, supervision of patient- no hands on or Contact guard assist, steady assist or Minimal assist, patient does 75% or more **2 points:** Moderate assist, patient does 50-74% **3 points :** Maximum assist, patient does 25-49% or Dependent, patient does less than 25 %: 3 points: Complex Ambulation
Daily Cares Flowsheet: Anti-Embolism Devices	**3 points:** Elastic Wrap
Daily Cares Flowsheet: Continuous Passive Motion	**1 point**
Daily Cares Flowsheet: Length of Family Update	**1 point: Less than 15 minutes** **2 points: 15 to 30 minutes** **3 points: 30 to 60 minutes** **4 points: More than 60 minutes**
Daily Cares Flowsheet: Feeding	**1 point:** Needs assist (each time) **2 points:** Total assist (each time)
Daily Cares Flowsheet: Hygiene (If RN chooses mult. Hygiene interventions-assign a score for each intervention and add together for final score)	**1 point:** foley care or oral care or shaved or peri-wash or hair wash or back rub **2 points:** Bathed
Daily Cares Flowsheet: VAP, Oral Care	**1 point:** for each four hour frequency
Daily Cares Flowsheet: Hemodynamic Monitoring Row	**2 points: SVV**
Daily Cares Flowsheet: Positioning Retrospectively for 24	**1 point**: For each reposition documented 1 point: if repositioning requires 3 or more people
Education Activity	**1 point:** Unresolved Education
Education Activity: Assessment (Barrier)	**1 point:** Language or Visual or Hearing or Emotional or Cognitive
Education Activity: Language	**1 point:** Interpreter needed
Impella Flowsheet:	**5 points:** Every hour if the nurse documented on the flowsheet
Intra-Aortic Balloon Pump Flowsheet	**5 points:** Every hour if the nurse documented on the flowsheet
Non OR Time Out Flowsheet: Procedures	**2 points:** Central Line or Thoracentesis or Paracentisis or Chest Tube **3 points:** Lumbar Puncture or Bronch or G-Tube or Swan **4 points:** Trach or ICP or Pacemaker, Pericardial Centesis **5 points:** Blakemore
Note	**1 point:** For each note written during the last 24 hours
Post Procedure Flowsheet	**2 points:** Abnormal ACT Test Result (nurse needs to collect another specimen):
Post Procedure Flowsheet: Pulse Checks	**1 point:** if done more than 6 times in a 24 period
Restraint Flowsheet (24 hours)	**0.5 point:** If nurse documented on the flowsheet
Screening Flowsheet: Disphagia Screen; Patient given 3 oz water trial	**1 point**
Sedation Narrator (documented)	**5 points**
Temperature Management Flowsheet (added on patient)	1 point: Convention, Blanketrol **5 points: Artic Sun**

Vital Sign Flowsheet: O2 Device (24 hours)	**1 point:** Nasal Cannula Device or Face mask or Simple Mask or Ventre mask **2 points:** Non re-breather mask: **3 points:** Hi flow and CPAP **4 points:** BiPAP and Helox
Vital Sign Flowsheet (24 hours)	**1 point:** if more than hourly vital signs documented – 1 point for each additional set
Vital Sign Flowsheet: Pain (24 hours)	**1 point**: for each pain documented over 6 times in a 24 period
Vital Sign Flowsheet: Sedation (24 hours)	**1 point:** 3 Sedated or 4 Calm and Cooperative **3 points:** 7 Dangerous or 6 Very agitated or 5 Agitated or Very Sedated or 1 Un-arousable
Vital Sign Flowsheet: Sed Line	**3 points**

LDA: Wound

Wound LDA	Type of Wound	Location and Description	Dressing Change Row	Treatment and Dressing Rowing	Total score of Row
Wound LDA #1					
Wound LDA # 2					
Wound LDA # 3					
Wound LDA # 4					

Scores for Properties and Rows associated with the Wound LDA

Wound LDA	**1 point:** for every Wound LDA
Location and Description	Location: **2 points** Buttock or Sacrum: **3 points:** Pelvic (Rectum or Perineum or Scrotum or Vagina) Description: **1 point:** Anterior **2 points:** Posterior
Dressing Change	**1 point**: Reinforced or RN assisted **2 points**: Changed
Treatment (Captures type of dressing)	**1 point: (Simple Wound Treatment)** ABD or Antibiotic ointment/Bacitracin, or Barrier ointment or Barrier wipe/skin prep or Exudry pads or Foam or Adhesive or Gauze, antimicrobial 2X2 or Gauze, antimicrobial 4X4 or Gauze, antimicrobial kerlix roll or Gauze, antimicrobial DSD or Gauze, oil emulsion or Gauze, vaseline/petroleum or Gauze, xeroform or Hydrocolloid 4X4 or Hydrogel/wound gel apply to wound or Non-adherent pad or Non-adherent pad or Surgical Fabric or Transparent film: **2 points: (Packing Wound Treatment)** Gauze, Iodoform packing 1 inch or Gauze, Iodoform packing ½ inch or Gauze, Iodoform packing 1/4 inch or Gauze, normal saline moistened-packed in wound or Gauze, plan packing 1 inch pack in wound or Gauze, plan packing 1/2 inch pack in wound or Gauze, plan packing 1/4 inch pack in wound: 2 points **3 points: (Heavy Wound Treatment)** Heavy drainage pack (large ABD):

LDA Burn

Burn LDA	Type of Burn	Location and Description	Dressing Change Row	Treatment and Dressing Rowing	Total score of Row
Burn LDA #1					
Burn LDA # 2					
Burn LDA # 3					
Burn LDA # 4					

Scores for Properties and Rows associated with the Burn LDA

Type of Burn	**1 point**: Superficial **2 points**: Superficial partial, deep partial thickness **3 points**: Full thickness
Location and Description	Location: **2 points** Buttock or Sacrum: **3 points:** Pelvic (Rectum or Perineum or Scrotum or Vagina) Description: **1 point:** Anterior **2 points:** Posterior
Dressing Change	**1 point**: Reinforced or RN assisted **2 points**: Changed
Treatment (Captures type of dressing) 24 hours	**1 point: (Simple Wound Treatment)** ABD or Antibiotic ointment/Bacitracin, or Barrier ointment or Barrier wipe/skin prep or Exudry pads or Foam or Adhesive or Gauze, antimicrobial 2X2 or Gauze, antimicrobial 4X4 or Gauze, antimicrobial kerlix roll or Gauze, antimicrobial DSD or Gauze, oil emulsion or Gauze, vaseline/petroleum or Gauze, xeroform or Hydrocolloid 4X4 or Hydrogel/wound gel apply to wound or Non-adherent pad or Non-adherent pad or Surgical Fabric or Transparent film: **2 points: (Packing Wound Treatment)** Gauze, Iodoform packing 1 inch or Gauze, Iodoform packing ½ inch or Gauze, Iodoform packing 1/4 inch or Gauze, normal saline moistened-packed in wound or Gauze, plan packing 1 inch pack in wound or Gauze, plan packing 1/2 inch pack in wound or Gauze, plan packing 1/4 inch pack in wound: 2 points **3 points: (Heavy Wound Treatment)** Heavy drainage pack (large ABD):

LDA: Surgical Incision

Surgical Incision LDA	Location and Description	Flap Check	Dressing Change Row	Treatment and Dressing Rowing	Total score of Row
Surgical Incision LDA #1					
Surgical Incision LDA # 2					
Surgical Incision LDA # 3					
Surgical Incision LDA # 4					

Scores for Properties and Rows associated with the Surgical LDA

Surgical Incision LDA	1 point: For each surgical incision LDA
Location and Description	Location: **2 points** Buttock or Sacrum: **3 points:** Pelvic (Rectum or Perineum or Scrotum or Vagina) Description: **1 point:** Anterior **2 points:** Posterior
Dressing Change	**1 point:** Reinforced or RN assisted **2 points:** Changed
Treatment (Captures type of dressing) 24 hours	**1 point: (Simple Wound Treatment)** ABD or Antibiotic ointment/Bacitracin, or Barrier ointment or Barrier wipe/skin prep or Exudry pads or Foam or Adhesive or Gauze, antimicrobial 2X2 or Gauze, antimicrobial 4X4 or Gauze, antimicrobial kerlix roll or Gauze, antimicrobial DSD or Gauze, oil emulsion or Gauze, vaseline/petroleum or Gauze, xeroform or Hydrocolloid 4X4 or Hydrogel/wound gel apply to wound or Non-adherent pad or Non-adherent pad or Surgical Fabric or Transparent film: **2 points: (Packing Wound Treatment)** Gauze, Iodoform packing 1 inch or Gauze, Iodoform packing ½ inch or Gauze, Iodoform packing 1/4 inch or Gauze, normal saline moistened-packed in wound or Gauze, plan packing 1 inch pack in wound or Gauze, plan packing 1/2 inch pack in wound or Gauze, plan packing 1/4 inch pack in wound: 2 points **3 points: (Heavy Wound Treatment)** Heavy drainage pack (large ABD):

LDA: Lower Extremity (LE) Ulcer

LE Ulcer LDA	Type of LE Ulcer	Location and Description	Dressing Change Row	Treatment and Dressing Rowing	Total score of Row
LE Ulcer LDA #1					
LE Ulcer LDA # 2					
LE Ulcer LDA # 3					
LE Ulcer LDA # 4					

Scores for Properties and Rows associated with the LE Ulcer LDA

LE Ulcer LDA	**1 point:** for each LE Ulcer added
Location and Description	Location: **2 points** Buttock or Sacrum: **3 points:** Pelvic (Rectum or Perineum or Scrotum or Vagina) Description: **1 point:** Anterior **2 points:** Posterior
Dressing Change	**1 point**: Reinforced or RN assisted **2 points**: Changed
Treatment (Captures type of dressing) 24 hours	**1 point: (Simple Wound Treatment)** ABD or Antibiotic ointment/Bacitracin, or Barrier ointment or Barrier wipe/skin prep or Exudry pads or Foam or Adhesive or Gauze, antimicrobial 2X2 or Gauze, antimicrobial 4X4 or Gauze, antimicrobial kerlix roll or Gauze, antimicrobial DSD or Gauze, oil emulsion or Gauze, vaseline/petroleum or Gauze, xeroform or Hydrocolloid 4X4 or Hydrogel/wound gel apply to wound or Non-adherent pad or Non-adherent pad or Surgical Fabric or Transparent film: **2 points: (Packing Wound Treatment)** Gauze, lodoform packing 1 inch or Gauze, lodoform packing ½ inch or Gauze, lodoform packing 1/4 inch or Gauze, normal saline moistened-packed in wound or Gauze, plan packing 1 inch pack in wound or Gauze, plan packing 1/2 inch pack in wound or Gauze, plan packing 1/4 inch pack in wound: 2 points **3 points: (Heavy Wound Treatment)** Heavy drainage pack (large ABD):

LDA: Pressure Ulcer

Ulcer LDA	Stage	Location and Description	Dressing Change Row	Treatment and Dressing Rowing	Total score of Row
Ulcer LDA #1					
Ulcer LDA # 2					
Ulcer LDA # 3					
Ulcer LDA # 4					

Scores for Properties and Rows associated with the LE Ulcer LDA

Ulcer LDA	**1 point:** for each Ulcer LDA added
Location and Description	Location: **2 points** Buttock or Sacrum: **3 points:** Pelvic (Rectum or Perineum or Scrotum or Vagina) Description: **1 point:** Anterior **2 points:** Posterior
Dressing Change	**1 point**: Reinforced or RN assisted **2 points**: Changed
Treatment (Captures type of dressing) 24 hours	**1 point: (Simple Wound Treatment)** ABD or Antibiotic ointment/Bacitracin, or Barrier ointment or Barrier wipe/skin prep or Exudry pads or Foam or Adhesive or Gauze, antimicrobial 2X2 or Gauze, antimicrobial 4X4 or Gauze, antimicrobial kerlix roll or Gauze, antimicrobial DSD or Gauze, oil emulsion or Gauze, vaseline/petroleum or Gauze, xeroform or Hydrocolloid 4X4 or Hydrogel/wound gel apply to wound or Non-adherent pad or Non-adherent pad or Surgical Fabric or Transparent film: **2 points: (Packing Wound Treatment)** Gauze, lodoform packing 1 inch or Gauze, lodoform packing ½ inch or Gauze, lodoform packing 1/4 inch or Gauze, normal saline moistened-packed in wound or Gauze, plan packing 1 inch pack in wound or Gauze, plan packing 1/2 inch pack in wound or Gauze, plan packing 1/4 inch pack in wound: 2 points **3 points: (Heavy Wound Treatment)** Heavy drainage pack (large ABD):

LDA: Chest Tube

	Chest Tube Point	Type of Suction Point	Total Score
Chest Tube LDA #1			
Chest Tube LDA # 2			
Chest Tube LDA # 3			
Chest Tube LDA # 4			

Scores for Properties and Rows associated with the Chest Tube LDA

Chest Tube LDA	**1 point**
Type of Suction	**2 points:** Low Wall or Water Seal

LDA: ETT (artificial airway)

	ETT Point	Re-taped Point	Total Score
ETT			

Scores for Properties and Rows associated with the ETT LDA

ETT	**1 point**
Re-taped ETT	**1 point**

LDA: Ostomies

Type of Ostomy	Points	Intervention Row Point	Total Score
Colostomy			
Jejunostomy			
Ileostomy			
Urostomy			
Nephrostomy			

Scores for Properties and Rows associated with Ostomy LDAs

Type of Ostomy	Points	Treatment Row Documented
Colostomy	**2 points**	**1 points**
Jejunostomy	**2 points**	**1 point**
Ileostomy	**2 points**	**1 point**
Urostomy	**2 points**	**1 point**
Nephrostomy (Moderate Drain)	**2 points**	**1 point**
Gastrostomy/ Enterostomy (Simple Drain)	**1 point**	N/A

LDA: Feeding or Drainage Tube

Type of Feeding or Drainage Tube	Points	Verified Placement
NG/OG		
Dobhoff		

Scores for Properties and Rows associated with Feeding or Drainage Tube LDA

Type of Feeding or Drainage Tube	Points	Verified Placement

NG/OG	**1 point**	**1 point** (24 hours) No points for chest X-ray
Dobhoff	**1 point**	N/A

LDA: Other

Scores for Properties and Rows associated with Other LDAs

Adult Trach **(artificial airway)**	**2 points**
Apheresis Line	**1 point: single or double**
Arterial Line	**1 point**
Arterial Sheath	**3 points**
Autologous Reinfusion Drain Device (Moderate Drain)	**2 points**
AV Fistula	**1 point**
Biliary Stent (Simple Drain)	**1 point**
Biliary Tube (Simple Drain)	**1 point**
Central Line (assign 1 point for each central line and add for final score)	**1 point: single or double or triple**
Closed Drain (assign 2 points for each closed drain and add for final score) (Moderate Drain)	**2 points**
Condom Cath (Simple Drain)	**1 point**
Extrapleural catheter	2 points
Fistula Wound (Moderate Drain)	**2 points**
Flexiseal (Moderate Drain)	**2 points**
GEBT Tube	**5 points** for the tube **5 points** every time the nurse documents in the pressure (Hg) row
Halo pins	**1 point**
Hemodialysis Catheter	**1 point: single or double or triple**
IAB	**5 points**
ICP Ventriculostomy Drain	**4 points**
Indwelling (Foley) Catheter	**1 point**
Intraosseous	**1 point**

Introducer/Cordus/Side Arm	**2 points**
Laryngectomy	**3 points**
Lumbar Drain	**4 points**
Midline	**1 point**
Open Drain (Moderate Drain)	**2 points**
Pacer Wires: Connected	**Unable to do**
Pacer Wires: Not Connected	**Unable to do**
Pericardial Drain	**3 points**
Peripheral Line (assign 1 point for each peripheral iine and add for final score)	**1 point**
Peritoneal Dialysis Catheter	**1 point**
PICC (assign a point for each PICC and add for final score)	**1 point; single or double or triple**
Port	**1 point: single or double**
Pump Device	**2 points**
Rectal Pouch	**3 points**
Suprapubic Tube (Simple Drain)	**1 point**
Swan in place	**Unable to do**
Ureteral Drain/Stint (Moderate Drain)	**2 points**
Venous Sheath	**2 points**

Example of Adult ICU Nursing Workload Acuity Score

Dept/Loc	[redacted]	Room and Bed	Admit Date/Time	Nurse Workload
MEN SICU [10102509]		MSIC1 MSIC1-01	12/28/2015 1455	107
MEN SICU [10102509]		MSIC2 MSIC2-01	12/30/2015 2236	181
MEN SICU [10102509]		MSIC5 MSIC5-01	12/21/2015 0551	143
MEN SICU [10102509]		MSIC9 MSIC9-01	12/24/2015 1813	219
MEN SICU [10102509]		MSIC4 MSIC4-01	12/26/2015 1753	241
MEN SICU [10102509]		MSIC3 MSIC3-01	11/29/2015 1332	156.5
MEN SICU [10102509]		MSIC7 MSIC7-01	12/27/2015 0133	173
MEN SICU [10102509]		MSIC1 MSIC1-02	12/26/2015 2144	137.5
MEN SICU [10102509]		MSIC8 MSIC8-01	12/28/2015 2258	202
MEN SICU [10102509]		MSIC6 MSIC6-01	12/22/2015 0710	200.5

Back | Adult ICU Nursing Acuity Score

Adult ICU Nursing Acuity : 241

New Arrival to ICU: 0 points - [Last updated: 12/31/15 1241]

Discharge Dispo Home: 0 points - [Last updated: 12/31/15 1241]

Discharge Dispo Facility: 0 points - [Last updated: 12/31/15 1241]

Requires Interpreter: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Pt has Barriers to Learning: 0 points - [Last updated: 12/31/15 1241]

Has Unresolved Education: 2 points (Up 2 points since last review) - [Last updated: 12/31/15 1241]

Care Plan Note Written: 0 points - [Last updated: 12/31/15 1241]

Airborne Isolation: 0 points - [Last updated: 12/31/15 1241]

Contact Isolation: 0 points - [Last updated: 12/31/15 1241]

Contact Plus Isolation: 0 points - [Last updated: 12/31/15 1241]

Droplet Isolation: 0 points - [Last updated: 12/31/15 1241]

Enhanced Isolation: 0 points - [Last updated: 12/31/15 1241]

Precautions within last 24 hours: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Comfort Care Order: 0 points - [Last updated: 12/31/15 1241]

Vital Signs more than 24 per day: 0 points - [Last updated: 12/31/15 1241]

Orthostatic Vital Signs Order: 0 points - [Last updated: 12/31/15 1241]

Temperature Management Device: 0 points - [Last updated: 12/31/15 1241]

Shivering Interventions Order: 0 points - [Last updated: 12/31/15 1241]

Assessment Not WDL: 38 points (Up 38 points since last review) - [Last updated: 12/31/15 1241]

Number of times assessment complete: 36 points (Up 36 points since last review) - [Last updated: 12/31/15 1241]

Number of Pain Score in last 24 hours: 8 points (Up 8 points since last review) - [Last updated: 12/31/15 1241]

Glasgow Coma Scale: 14 points (Up 14 points since last review) - [Last updated: 12/31/15 1241]

Example of Adult ICU Nursing Workload Acuity Score

Recent Sedation: 0 points - [Last updated: 12/31/15 1241]

Sedation Score 1, 5, 6 or 7 in last 24 hours: 12 points (Up 12 points since last review) - [Last updated: 12/31/15 1241]

Sedation Score 2,3, or 4 in last 24 hours: 2 points (Up 2 points since last review) - [Last updated: 12/31/15 1241]

Sedation Vacation Performed: 3 points (Up 3 points since last review) - [Last updated: 12/31/15 1241]

Train of Four: 0 points - [Last updated: 12/31/15 1241]

Sed Line Activity: 0 points - [Last updated: 12/31/15 1241]

Lumbar/ ICP Drain Exists: 12 points (Up 12 points since last review) - [Last updated: 12/31/15 1241]

O2 Device last 12 hours: 0 points - [Last updated: 12/31/15 1241]

Respiratory Interventions within 24 hours: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Chest PT: Manual vs. Bed: 2 points (Up 2 points since last review) - [Last updated: 12/31/15 1241]

Nasal Suctioning Frequency: 0 points - [Last updated: 12/31/15 1241]

Airway Suctioning Frequency: 3 points (Up 3 points since last review) - [Last updated: 12/31/15 1241]

Sputum Culture: 0 points - [Last updated: 12/31/15 1241]

Incentive Spirometry Order: 0 points - [Last updated: 12/31/15 1241]

End Tidal CO2 Order: 0 points - [Last updated: 12/31/15 1241]

Adult Chest Tube: 0 points - [Last updated: 12/31/15 1241]

Chest Tube Type of Suction: 0 points - [Last updated: 12/31/15 1241]

Extrapleural Catheter Exists: 0 points - [Last updated: 12/31/15 1241]

Artifical Airway: 2 points (Up 2 points since last review) - [Last updated: 12/31/15 1241]

Vent Mode within last 24 hours: 2 points (Up 2 points since last review) - [Last updated: 12/31/15 1241]

ETT Retaped within 24 hours: 0 points - [Last updated: 12/31/15 1241]

Laryngectomy Exists: 0 points - [Last updated: 12/31/15 1241]

VAP Oral Care: 6 points (Up 6 points since last review) - [Last updated: 12/31/15 1241]

Prone Position Order: 0 points - [Last updated: 12/31/15 1241]

ECG Order: 2 points (Up 2 points since last review) - [Last updated: 12/31/15 1241]

SVV Documented: 0 points - [Last updated: 12/31/15 1241]

Type of Temporary Pace Maker in Last 24 Hours: 0 points - [Last updated: 12/31/15 1241]

Balloon Pump Exists: 0 points - [Last updated: 12/31/15 1241]

IABP Balloon Controls Documentation: 0 points - [Last updated: 12/31/15 1241]

Impella Documentation: 0 points - [Last updated: 12/31/15 1241]

Pericardial Drain Exists: 0 points - [Last updated: 12/31/15 1241]

Pulses within 24 hours: 12 points (Up 12 points since last review) - [Last updated: 12/31/15 1241]

Elastic Wraps: 0 points - [Last updated: 12/31/15 1241]

Hygiene Documentation within 24 hours: 3 points (Up 3 points since last review) - [Last updated: 12/31/15 1241]

Patient Position Frequency within 24 hours: 0 points - [Last updated: 12/31/15 1241]

Proning: 0 points - [Last updated: 12/31/15 1241]

Has Ostomy?: 0 points - [Last updated: 12/31/15 1241]

Ostomy Treatments in the Past 24 hours: 0 points - [Last updated: 12/31/15 1241]

Number of Wounds/Burns/Ulcers/Incisions: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Degree of Burn: 0 points - [Last updated: 12/31/15 1241]

Burn Dressing Changed: 0 points - [Last updated: 12/31/15 1241]

Wound Dressing Changed: 0 points - [Last updated: 12/31/15 1241]

Ulcer Dressing Changed: 0 points - [Last updated: 12/31/15 1241]

Negative Pressure Wound : 22 points (Up 22 points since last review) - [Last updated: 12/31/15 1241]

Simple Wound Treament: 0 points - [Last updated: 12/31/15 1241]

Example of Adult ICU Nursing Workload Acuity Score

Packing Wound Treatment: 0 points - [Last updated: 12/31/15 1241]

Heavy ABD Dressing: 0 points - [Last updated: 12/31/15 1241]

Anterior Burn Location: 0 points - [Last updated: 12/31/15 1241]

Posterior Burn Location: 0 points - [Last updated: 12/31/15 1241]

Pelvic Burn Location: 0 points - [Last updated: 12/31/15 1241]

Anterior Wound Location: 0 points - [Last updated: 12/31/15 1241]

Posterior Wound Location: 0 points - [Last updated: 12/31/15 1241]

Pelvic Wound Location: 0 points - [Last updated: 12/31/15 1241]

Anterior Ulcer Locations: 0 points - [Last updated: 12/31/15 1241]

Posterior Ulcer Location: 0 points - [Last updated: 12/31/15 1241]

Pelvic Ulcer Location: 0 points - [Last updated: 12/31/15 1241]

Anterior Incision Location: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Posterior Incision Location: 0 points - [Last updated: 12/31/15 1241]

Pelvic Incision Location: 0 points - [Last updated: 12/31/15 1241]

Flap Check Order: 0 points - [Last updated: 12/31/15 1241]

Level of Assistance with 24 hours: 3 points (Up 3 points since last review) - [Last updated: 12/31/15 1241]

CPM Documented: 0 points - [Last updated: 12/31/15 1241]

TLSO Brace Order: 0 points - [Last updated: 12/31/15 1241]

Pins Present: 0 points - [Last updated: 12/31/15 1241]

PO Challenge: 0 points - [Last updated: 12/31/15 1241]

Pt has NG/OG Tube: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Tube Placement Verification: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Example of Adult ICU Nursing Workload Acuity Score

Pt has GEBT: 0 points - [Last updated: 12/31/15 1241]

Needs Assist Feeding: 0 points - [Last updated: 12/31/15 1241]

Total Assist Feeding: 0 points - [Last updated: 12/31/15 1241]

Tube Feed Bolus Order: 0 points - [Last updated: 12/31/15 1241]

Tube Feed Order: Continuous or Cyclic: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Free Water Order: 0 points - [Last updated: 12/31/15 1241]

Fluid Restriction Order: 0 points - [Last updated: 12/31/15 1241]

Calorie Count Order: 0 points - [Last updated: 12/31/15 1241]

Stool Specimens: 0 points - [Last updated: 12/31/15 1241]

Tap Water Enema Order: 0 points - [Last updated: 12/31/15 1241]

Simple Drain Exists: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Moderate Drain Exists: 0 points - [Last updated: 12/31/15 1241]

Bladder Scan: 0 points - [Last updated: 12/31/15 1241]

Urine Specimens to Collect: 0 points - [Last updated: 12/31/15 1241]

Strain All Urine Order: 0 points - [Last updated: 12/31/15 1241]

Pt has Peritoneal Dialysis Catheter: 0 points - [Last updated: 12/31/15 1241]

Peritoneal Dialysis Meds on MAR: 0 points - [Last updated: 12/31/15 1241]

Pt has Hemodialysis Access: 0 points - [Last updated: 12/31/15 1241]

CRRT Order: 0 points - [Last updated: 12/31/15 1241]

CRRT Documentation: 0 points - [Last updated: 12/31/15 1241]

Length of Family Update within 24 hours: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Type of Procedure Completed in last 12 hours: 0 points - [Last updated: 12/31/15 1241]

Number of PIV: 3 points (Up 3 points since last review) - [Last updated: 12/31/15 1241]

Example of Adult ICU Nursing Workload Acuity Score

Has Midline?: 0 points - [Last updated: 12/31/15 1241]

Has PICC line?: 0 points - [Last updated: 12/31/15 1241]

Has CVC?: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Has A-Line?: 2 points (Up 2 points since last review) - [Last updated: 12/31/15 1241]

Has Intraosseous Line?: 0 points - [Last updated: 12/31/15 1241]

Arterial Sheath Exists: 0 points - [Last updated: 12/31/15 1241]

Venous Sheath Exists: 0 points - [Last updated: 12/31/15 1241]

Labs To Draw: -2 points (Down 2 points since last review) - [Last updated: 12/31/15 1241]

POCT: ACT: 0 points - [Last updated: 12/31/15 1241]

POCT: GLUCOSE: 3 points (Up 3 points since last review) - [Last updated: 12/31/15 1241]

Blood Culture Orders: 0 points - [Last updated: 12/31/15 1241]

Swab Culture Orders: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Blood Units Remaining: 0 points - [Last updated: 12/31/15 1241]

Blood Transfusion Suspected Reaction: 0 points - [Last updated: 12/31/15 1241]

Blood Aliquot Removal Order: 0 points - [Last updated: 12/31/15 1241]

MAR Actions: New Bag, Rate Dose Change and Handoff: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

MAR Routes Simple Complexity: 18 points (Up 18 points since last review) - [Last updated: 12/31/15 1241]

MAR Routes Moderate Complexity: 14 points (Up 14 points since last review) - [Last updated: 12/31/15 1241]

MAR Routes High Complexity: 0 points - [Last updated: 12/31/15 1241]

Adult/PICU Simple Infusions: 0 points - [Last updated: 12/31/15 1241]

Adult/PICU Moderate Infusions: 0 points - [Last updated: 12/31/15 1241]

Adult/PICU Complex Infusions: 0 points - [Last updated: 12/31/15 1241]

Adult/PICU Highly Complex Infusions: 0 points - [Last updated: 12/31/15 1241]

Adult/PICU PCA Ordered: 0 points - [Last updated: 12/31/15 1241]

Pt has Inhaled Flolan: 0 points - [Last updated: 12/31/15 1241]

Haldol Injection Given: 0 points - [Last updated: 12/31/15 1241]

Pump Exists: 0 points - [Last updated: 12/31/15 1241]

CIWA Assessments within 24 hours: 0 points - [Last updated: 12/31/15 1241]

COWS Assessment: 0 points - [Last updated: 12/31/15 1241]

Non Violent Restraint Order: 1 points (Up 1 points since last review) - [Last updated: 12/31/15 1241]

Non Violent Restraint Documentation: 0 points - [Last updated: 12/31/15 1241]

Violent Restraint Order: 0 points - [Last updated: 12/31/15 1241]

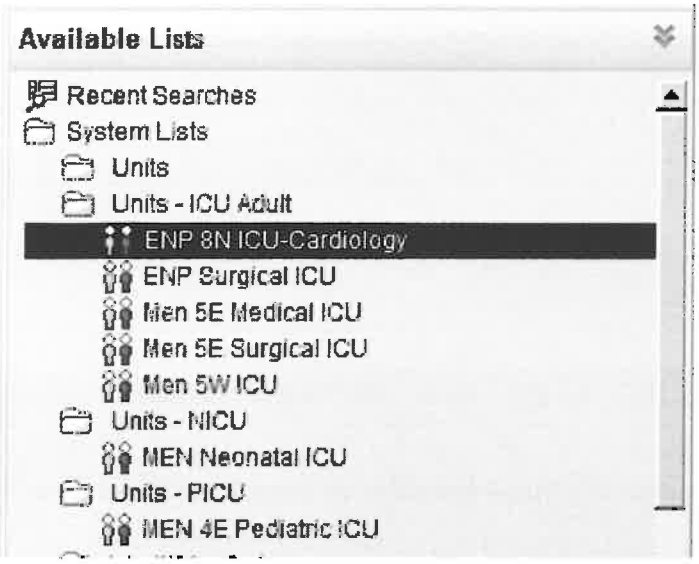
Violent Restraint Documentation: 0 points - [Last updated: 12/31/15 1241]

: 5 points (Up 5 points since last review) - [Last updated: 12/31/15 1241]

Nurses View of Epic Workload Acuity Score

The nurses will see the Nurse Workload Acuity Scores in these Patient List folders. Nurses have easy access to the Patient List folders as this is the first screen they see when they log into EPIC.

At BMC, we have 5 Adult ICUs, 1 Pediatric ICU and 1 Neonatal ICU. Each ICU has its own patient list. The screen shot below illustrates the ICU Patient List folders available at BMC.



In order to see the score, the nurse would click into the particular unit that he/she is working in to see the patient list associated with that unit along with an individual score. The screen shot below is an example that illustrates what a nurse would see when she clicks into a specific ICU patient list. In this example I have clicked into the ENP 8N ICU-Cardiology Patient List. The score is the second column on the patient list and is associated with a particular patient. Each of the ICU patient list folders are built this way.