Illinois EMSC

Sample Pediatric Emergency Department (ED) Quality Improvement Markers/Indicators

***Purpose**: This document identifies key quality improvement areas of focus that hospitals may consider adding to their pediatric quality improvement dashboard. Specific options are outlined within each area of focus and can certainly be expanded upon.*

Appendicitis

- Evaluation inclusive of the following as appropriate: physical exam findings, Pediatric Appendicitis Score (PAS) if applicable, labs (CBC, CRP), ultrasound, CT, MRI
- Decision to transfer was appropriate, and based on patient age or other factors
- Sepsis considerations

Asthma

- Prior ICU admission
- Onset of wheezing, prior treatments
- O_2 sat, BP, HR and RR documented
- Reassessment/documentation identifying progress
- Evaluate criteria for referral to a pulmonologist

Behavioral Health

- Patient safety documentation (room safety check, belongings removed from room)
- Use of screening tool i.e. Columbia Suicide Severity Rating Scale (C-SSRS), Ask Suicide-Screening Questions (ASQ), Patient Health Questionnaire-9 (PHQ-9)
- Time to and assessment by psychosocial personnel
- Timeframe to SASS/CARES evaluation
- Evaluation of patient placement issues
- Medication needs
- Documentation of de-escalation strategies or need for restraint use in the violent patient
- Completion of Restriction of Rights form
- Time to definitive care
- Length of stay

Bronchiolitis

- Assess if suctioning done (bulb, deep suctioning)
- Reassessment after suctioning
- Documentation after suctioning to monitor progress

Burns

- Complete set of vital signs documented: Temperature, BP, HR, RR and Pulse Oximetry
- Pain scale assessment documented
- Burn location and percent Body Surface Area (BSA)
- Child maltreatment assessment completed
- Adequate volume resuscitation in patients presenting in shock condition
- Transfer goal within 2 hours after arrival in ED to burn center/trauma center, as appropriate

Child Maltreatment

- Screening mechanisms
- Social work evaluation/referral
- DCFS reporting documentation

Diabetic Ketoacidosis (DKA)

- Time to VBG and BS
- IV Fluid bolus appropriate
- K+, Na+, Ca and Phos documented
- DO NOT administer insulin bolus
- DO NOT administer HCO_3
- Mental status documented
- Serial examinations documented
- Hourly glucose documented
- Documentation of total fluids administered on the child transferred out
- Reassessment/documentation identifying progress

Head Trauma

- Timely and appropriate airway management when GCS < 8
- Child maltreatment assessment completed
- Reassessment/documentation identifying progress
- Documentation of indicator if CT head obtained.

Hematology/Oncology

- Time to antibiotic administration (fever/neutropenia)
- Reassessment/documentation identifying progress

Length of Stay in the ED

- Reassessment/documentation identifying progress
- Workup conducted prior to decision to transfer is reasonable
- Delays after decision to transfer patient

Mock Codes

- Evaluate dosing calculations and procedures
- Evaluate review of appropriate monitoring including end tidal CO2, if resources are available
- Reassessment/documentation identifying progress
- Evaluate team dynamics (leadership, communication, access to equipment/supplies, use of resources, mutual support)

Moderate Sedation

- Reassessment/documentation identifying progress
- Appropriate monitoring including end tidal CO_2, if resources are available

Neonatal Fever

- Time to antibiotics
- Lumbar puncture
- Reassessment/documentation identifying progress
- Disposition criteria (or use of decision tree)

Pain Management

- Door to first pain medication
- Documentation of relief
- Pulse oximetry
- Reassessment/documentation identifying progress

Patient Safety/Monitoring

- Obtaining accurate weight (in kg only)
- Weight obtained upon ED admission or was verbal weight conveyed by parent
- Vital signs routinely documented on kids, i.e. temperature
- Recognition of abnormal vital signs
- Reassessment/documentation identifying progress
- Monitoring medication error rates
- Process to assure compliance with PCCC/EDAP/SEDP equipment guidelines

Pneumonia

- Complete vital signs documented: Temperature, BP, HR, RR and Pulse Oximetry
- Time to blood cultures
- Time to first antibiotic
- Reassessment/documentation identifying progress

Rapid Response Team (RRT)

- Assess pediatric preparedness of RRT team members (required maintenance of PALS/ENPC/APLS, required pediatric continuing education completion)
- Reassessment/documentation identifying patient progress
- Use of debriefing process to improve team approach

Return Emergency Department Visits (Within 48 hours or 72 hours)

- Review of previous visit to assess if return was due to disease progression or any indication of issues/gaps in initial visit
- Contact with pediatrician/primary care provider during initial visit
- Patient/parent compliance with discharge instructions/success markers

Seizures

- Airway management
- Medication delivery
- Reassessment/documentation identifying progress
- Current medications documented

Sepsis

- Working definition of sepsis
- Use of and compliance with sepsis screening protocols
- Identified trigger(s) in sepsis recognition (Vital Signs: Temperature, HR, RR; underlying medical condition(s); mental status; assessment changes)
- Use of order sets
- IV access less than 15 minutes after recognition of sepsis
- Meet fluid administration of 20 mL/kg in first 20 minutes
- Time to blood cultures
- Time to antibiotics within 1st hour after recognition
- Contact Pediatric Intensive Care Unit (PICU) or tertiary care center as soon as possible for medical direction/guidance

Sickle Cell fever

- Similar to Neonatal Fever section
- Complete vital signs documented: Temperature, BP, HR, RR and Pulse Oximetry
- Time to first antibiotic as appropriate
- Reassessment/documentation identifying progress

Transfers

- Sending Hospital
  - Appropriateness of transfer
  - Documentation of a report provided to receiving hospital
  - Appropriate selection of a transport service matching patient acuity level
  - Obtaining informed consent
  - Transfer of a copy of the patient medical record information
  - Documentation that the family received referral hospital directions/information
  - Improvements at sending facility driven by transfer feedback/quality improvement sharing from receiving hospital
- Receiving Hospital
  - Appropriateness of transfer
  - Documentation of a report provided by the sending hospital
  - Assess whether patient management was consistent with current evidence based guidelines
  - Provision of feedback/quality improvement information to the sending hospital

Trauma

- Complete vital signs documented: Temperature, BP, HR, RR and Pulse Oximetry
- Child maltreatment assessment completed
- Adequate volume resuscitation in patients presenting in shock condition
- Transfer goal within 2 hours after arrival in the emergency department

VP shunt complaints

- Complete vital signs documented: Temperature, BP, HR, RR and Pulse Oximetry
- CT/MRI Head or Ventricles
- Fundoscopic exam
- Shunt series
- Time to neurosurgeon consultation
- Reassessment/documentation identifying progress