

Paediatric Levels of Care: Methodology

NOTE: The peer groups within your hospital level report were defined by number of inpatient admissions annually¹, and compared with Academic Health Sciences Centre² (AHSC), by level, as per below:

- Level 1 – AHSC **OR** Increments of ≤99: 0-99 (small), 100-399 (medium), above 400 (large)
- Level 2 – AHSC **OR** Increments of 2000s: 0-1999 (small), 2000-3999 (medium), above 4000 (large)
- Level 3 – AHSC

Each level is comprised of both “Mandatory” and “Highly Recommended Criteria”. The levels were defined as per the criteria outlined below:

Level 1:

- ED or Urgent Care assessing paediatric patients. Typically short-term paediatric admissions to combined adult/paediatric beds where nurses care for adult and paediatric patients, or stabilization and transfer.
- Low acuity
- Low medical complexity patients
- Low complexity procedures

Level 2:

- ED or Urgent Care assessing paediatric patients. Ability to admit paediatric patients with Paediatrician as MRP to a dedicated paediatric unit.
- Moderate acuity
- Moderate medical complexity patients
- Low complexity procedures

Level 3:

- Dedicated paediatric ED, paediatric wards/intensive care unit
- High acuity
- High medical complexity patients
- High complexity procedures

¹ As reported by the Canadian Institute for Health Information (CIHI)

² As listed on Council of Academic Hospitals of Ontario

Level 1: Mandatory Criteria

Educational Requirements
Physicians: Basic Life Support
Nurses: Basic Life Support
Organizational/Continuous Quality Improvement Requirements
Knowledge, skills, processes, and/or protocols are present for: Family-centred care/parental involvement
Knowledge, skills, processes, and/or protocols are present for: Knowledge re: normal vital signs
Knowledge, skills, processes, and/or protocols are present for: Standard medication dosing by weight
Knowledge, skills, processes, and/or protocols are present for: Standard concentrations for infusions
Knowledge, skills, processes, and/or protocols are present for: Standardized protocols in place for paediatric pain assessment/ management
Health Human Resources – Interprofessional
Chaplain
General Laboratory
Routine blood work (CBC, blood gas, general chemistry)
Blood type
Crossmatch
Urinalysis
Treatment/Procedures
Monitoring (Cardiac Resp Monitoring, O2 sat, etc.)
IV access
IV maintenance
Fluid management - variety of solutions, bolus, maintenance and ongoing
Short term O2 stabilization (< 90 minutes)
Intraosseous vascular access
Other Diagnostics
X-ray (basic)
Cardiac Diagnostic
Basic ECG
Specialized Equipment
Paediatric crash cart (Broselow)
Paediatric resuscitation equipment
Age specific, age appropriate sized equipment (e.g., blood pressure cuffs, endotracheal tubes, cannulas, masks etc.)

Level 2: Mandatory Criteria

Educational Requirements
Physicians: Basic Life Support
Nurses: Basic Life Support
Organizational/Continuous Quality Improvement Requirements
Knowledge, skills, processes, and/or protocols are present for: Family-centred care/parental involvement
Knowledge, skills, processes, and/or protocols are present for: Awareness of developmental milestones
Knowledge, skills, processes, and/or protocols are present for: Knowledge re: normal vital signs
Knowledge, skills, processes, and/or protocols are present for: Standard medication dosing by weight
Knowledge, skills, processes, and/or protocols are present for: Standard concentrations for infusions
Knowledge, skills, processes, and/or protocols are present for: Standardized protocols in place for paediatric pain assessment/ management
Knowledge, skills, processes, and/or protocols are present for: Paediatric procedural sedation program
Health Human Resources - Inter-professional
Chaplain
Respiratory Therapist with paediatric expertise
Social Worker with paediatric expertise
General Laboratory
Routine blood work (CBC, blood gas, general chemistry)
Blood type
Crossmatch
Urinalysis
Micro technique - for all routine blood work
Gram stain
Body fluid testing
CSF
Drug screen (collection of samples)
Treatment/Procedures
Urine catheterization
Arterial puncture
Lumbar puncture
Uncomplicated N/G tube feeding
Phototherapy
Ongoing O2 sat monitoring/therapy
Low flow O2 therapy

Level 2: Mandatory Criteria

Administration of blood products/blood transfusion
Monitoring (Cardiac Resp Monitoring, O2 sat, etc.)
IV access
IV maintenance
Fluid management - variety of solutions, bolus, maintenance and ongoing
Short term O2 stabilization (< 90 minutes)
Intraosseous vascular access
Other Diagnostics
Spirometry
X-ray (basic)
Ultrasound (basic)
CT
MRI
Cardiac Diagnostic
Basic ECG
Specialized Equipment
Paediatric ventilation equipment
Smart pump technology
Paediatric crash cart (Broselow)
Paediatric resuscitation equipment
Age specific, age appropriate sized equipment (e.g., blood pressure cuffs, endotracheal tubes, cannulas, masks etc.)

Level 3: Mandatory Criteria

Educational Requirements
Physicians: Basic Life Support
Nurses: Basic Life Support
Organizational/Continuous Quality Improvement Requirements
Knowledge, skills, processes, and/or protocols are present for: Family-centred care/parental involvement
Knowledge, skills, processes, and/or protocols are present for: Awareness of developmental milestones
Knowledge, skills, processes, and/or protocols are present for: Knowledge re: normal vital signs
Knowledge, skills, processes, and/or protocols are present for: Standard medication dosing by weight
Knowledge, skills, processes, and/or protocols are present for: Standard concentrations for infusions
Knowledge, skills, processes, and/or protocols are present for: Standardized protocols in place for paediatric pain assessment/ management
Knowledge, skills, processes, and/or protocols are present for: Paediatric procedural sedation program
Health Human Resources - Interprofessional
Chaplain
Child Life Specialist
Dietitian with paediatric expertise
Occupational Therapist with paediatric expertise
Physiotherapist with paediatric expertise
Respiratory Therapist with paediatric expertise
Social Worker with paediatric expertise
General Laboratory
Micro technique - for all routine blood work
Routine blood work (CBC, blood gas, general chemistry)
Blood type
Crossmatch
Gram stain
Body fluid testing
Multiplex PCR
Urinalysis
CSF
Drug screen (collection of samples)
Treatment/Procedures
Monitoring (Cardiac Resp Monitoring, O2 sat, etc.)
IV access

Level 3: Mandatory Criteria

IV maintenance
Fluid management - variety of solutions, bolus, maintenance and ongoing
Urine catheterization
Arterial puncture
Lumbar puncture
Uncomplicated N/G tube feeding
Phototherapy
Short term O2 stabilization (< 90 minutes)
Ongoing O2 sat monitoring/therapy
Low flow O2 therapy
High flow O2 therapy
Continuous positive airway pressure management (for acute respiratory distress)
Non-ventilated tracheotomy care
Chest tube initiation/maintenance
Intraosseous vascular access
IVIg
Total parenteral nutrition
Administration of blood products/blood transfusion
PICC - use and ongoing care
PICC - insertion
G and G-J tube - access and ongoing care
G tube replacement - mic key
Uncomplicated G and G-J tube insertion/replacement
Port-a-Cath - access and ongoing care
Port-a-Cath - insertion
Endoscopy
Colonoscopy
Home-ventilated patients
IV cancer chemotherapy
Exchange transfusion
Other Diagnostics
Pulmonary function test
Spirometry

Level 3: Mandatory Criteria

X-ray (basic)
Ultrasound (basic)
CT
MRI
MRI with sedation
Nuclear medicine
Upper GI
Small bowel follow through
GU (VCUG)
Interventional radiology
Basic EEG
Specialized EEG
Cardiac Diagnostic
Basic ECG
Echocardiography
Specialized Equipment
Paediatric crash cart (Broselow)
Paediatric resuscitation equipment
Paediatric ventilation equipment
Safe paediatric cribs and beds
Age specific, age appropriate sized equipment (e.g., blood pressure cuffs, endotracheal tubes, cannulas, masks etc.)
Smart pump technology
Isolation Capacity
Negative pressure isolation rooms

Level 1: Highly Recommended Criteria

Educational Requirements
Physicians: Paediatric Advanced Life Support (or approved equivalent)
Nurses: Paediatric Advanced Life Support (or approved equivalent)
Organizational/Continuous Quality Improvement Requirements
Knowledge, skills, processes, and/or protocols are present for access to, and use of: Standardized paediatric algorithms, and/or standardized paediatric best practices, and/or standardized paediatric care pathways
Knowledge, skills, processes, and/or protocols are present for: Awareness of developmental milestones
Knowledge, skills, processes, and/or protocols are present for: Paediatric procedural sedation program
General Laboratory
Micro technique - for all routine blood work
Gram stain
Body fluid testing
Drug screen (collection of samples)
Treatment/Procedures
Phototherapy
Administration of blood products/blood transfusion
Other Diagnostics
Ultrasound (basic)
Specialized Equipment
Safe paediatric cribs and beds
Smart pump technology

Level 2: Highly Recommended Criteria

Educational Requirements
Physicians: Paediatric Advanced Life Support (or approved equivalent)
Nurses: Paediatric Advanced Life Support (or approved equivalent)
Organizational/Continuous Quality Improvement Requirements
Knowledge, skills, processes, and/or protocols are present for access to, and use of: Standardized paediatric algorithms, and/or standardized paediatric best practices, and/or standardized paediatric care pathways
Health Human Resources - Inter-professional
Child Life Specialist
Dietitian with paediatric expertise
Occupational Therapist with paediatric expertise
Physiotherapist with paediatric expertise
Treatment/Procedures
G tube replacement - mic key
Other Diagnostics
Pulmonary function test
MRI with sedation
Upper GI
Small bowel follow through
GU (VCUG)
Specialized EEG
Specialized Equipment
Safe paediatric cribs and beds

Level 3: Highly Recommended Criteria

Educational Requirements

Physicians: Paediatric Advanced Life Support (or approved equivalent)

Nurses: Paediatric Advanced Life Support (or approved equivalent)

Organizational/Continuous Quality Improvement Requirements

Knowledge, skills, processes, and/or protocols are present for access to, and use of: Standardized paediatric algorithms, and/or standardized paediatric best practices, and/or standardized paediatric care pathways