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Flourishing in Pediatric CDI

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Presented By

Joy Bombay, RN, MSN, MHA, CCDS, is inpatient manager for clinical documentation excellence (CDE) at Atrium Health Wake Forest Baptist in Winston-Salem, North Carolina. She performs a clinical/leadership position that coordinates all activities related to compliance, denials management, mortality reviews, and quality assurance as well as education with the CDE team and providers. Her CDI career started in 2014 after spending 20 years in bedside nursing, providing care in the acute care setting as well as nursing leadership.

Presented By

Sandra H. Love, MSN, RN, CCDS, CCDS-O, CPC, is the director of solutions at Norwood based in Austin, Texas. She has over 17 years of nursing experience and 10 years in CDI, previously serving as manager of outpatient clinical documentation excellence at Atrium Health Wake Forest Baptist in Winston-Salem, North Carolina, where she helped to implement an outpatient CDI program and developed two pediatric CDI programs. A past president of the North Carolina ACDIS local chapter, she has spoken at a 2021 Georgia ACDIS chapter meeting and past national ACDIS conferences. Love is also a past member of the ACDIS Events Committee and ACDIS Leadership Council.

Learning Outcomes

- At the completion of this educational activity, the learner will be able to:
  - Determine where to start with pediatric CDI efforts
  - Identify pediatric (surgical and medical) MS-DRGs with commonly missed secondary diagnoses
  - Explain why building collaborative relationships is necessary
  - Develop policies and procedures for healthcare systems to support appeals for denials
  - Create pediatric CDI and clinician education

Brenner Children's Hospital Stats

Brenner Children's Hospital includes 172 inpatient beds, 12 pediatric intensive care unit (PICU) beds, and 51 neonatal ICU (NICU) beds, and is the referral center for western North Carolina, southern Virginia, and eastern Tennessee.

Brenner is staffed by over 150 full-time pediatric faculty with members representing over 30 pediatric subspecialties. In addition, Brenner Children's is staffed by physicians representing all pediatric surgical specialties.

Each year, more than 4,500 children are admitted to Brenner Children's. In addition, over 21,000 pediatric subspecialty visits occur annually at the hospital-based outpatient clinics.

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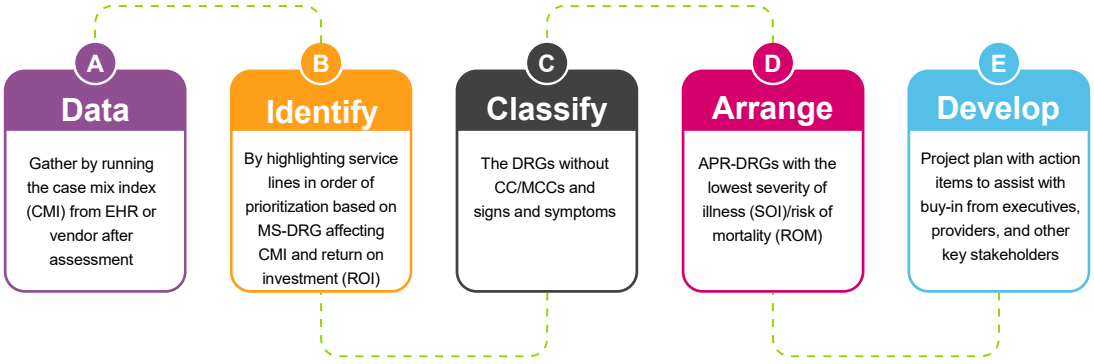
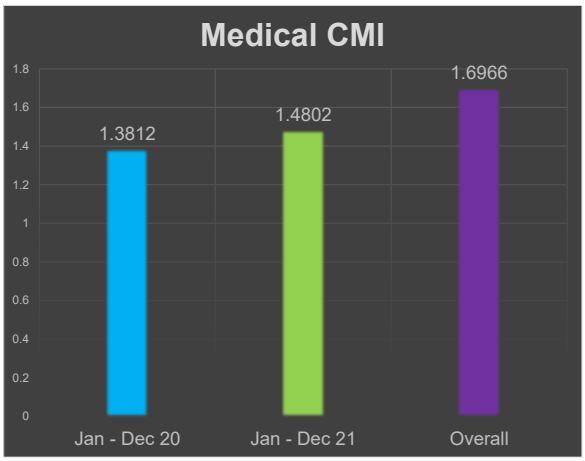
Determine Where to Start

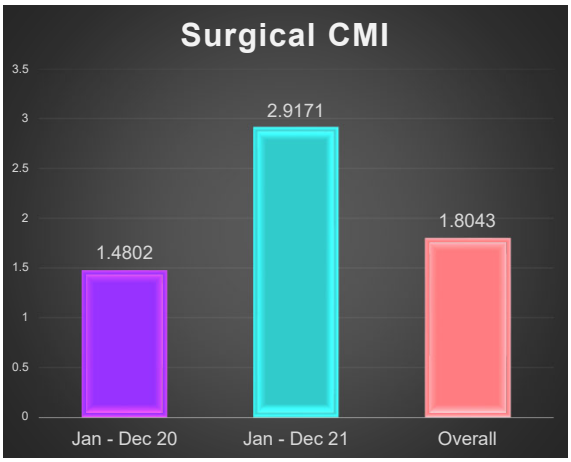
Where to Start



Cumulative Medical/Surgical CMI



Medical +7.17%



Surgical +4.97%

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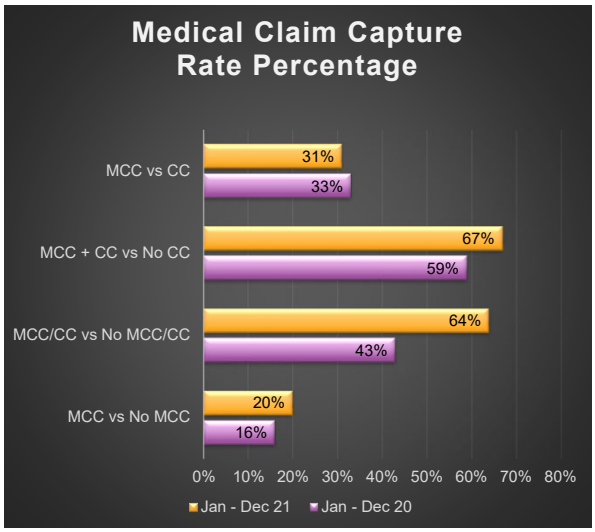
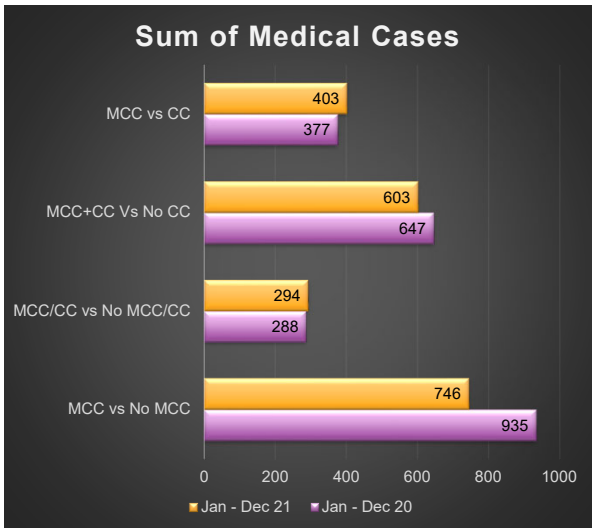
Medical Capture Rate





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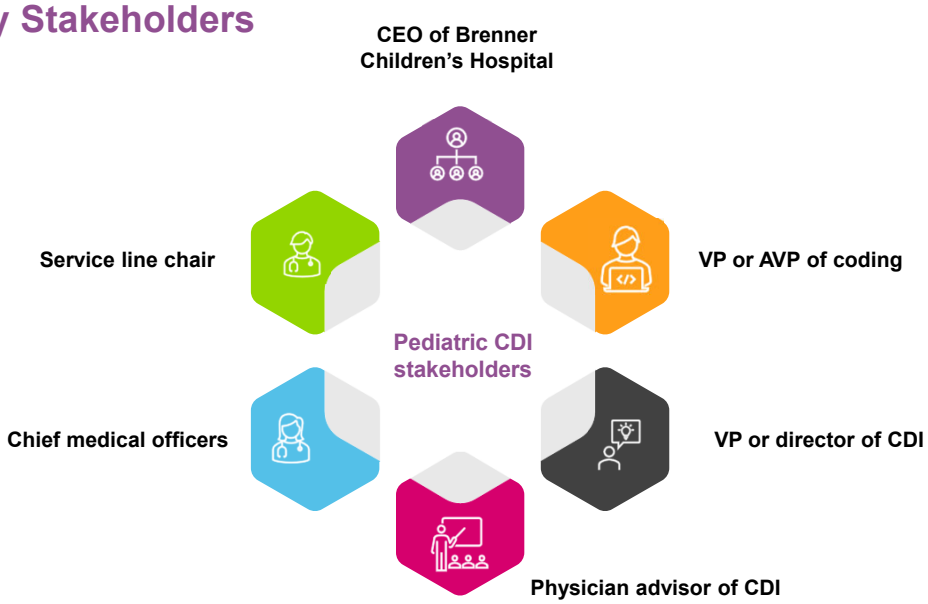
Pediatric CDI Implementation Plan

IDENTIFY	PLANNING	PROCESS	MONITORING	SUSTAINABILITY
Stakeholders-executive, providers, and departmental leaders Vendor CMI data report on billed MS-DRGs based on patient discharge volume Vendor Assessment with predicted revenue identified EHR CMI data report based on vendor criteria for comparison	Budget will be for 2 FTEs then reassessed in 6 months. Stakeholders will review claims data in 6 months to determine if new or modified processes are working CDI team role with implementation of MS-DRG and APR-DRG initiative	Initial/follow-up provider and CDI education, technology updates and resources Communication plan for providers and CDI regarding workflow, queries, and accountability	Track benchmarking metrics for increase/decrease in revenue and cohort data comparison reports Address barriers that affects CDI processes Track team performance pre and post implementation of CDI reviews and education	Stakeholder meeting to deliver outcomes with benchmarking data and revenue loss and increase continuation of program Finalize budgets for staff and potential more FTEs Finalize workflows, query process, metrics, and policies and procedures

Identify Stakeholders



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Identifying Pediatric MS-DRGs

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Popular Neonatal and Pediatric DRGs?

- Frequently reviewed MS-DRGs
  - Neonatal: DRG 795-793, 792-790, 228-230
  - Pediatric: DRGs 203-202, 343-341, 346-344, 869-867, 101-100
- Evaluate and assess the SOI/ROM
  - Missed secondary diagnoses
  - Further specificity of unspecified diagnoses
  - Linking of acute or chronic conditions
  - Present on admission

Commonly Missed CC/MCCs

- Acute respiratory failure—hypoxic, hypocapnia, or both
- Acute kidney injury (AKI)
- Respiratory distress syndrome, type 1
- Acidosis
- Malnutrition
- Acute heart failure

Secondary Diagnosis Commonly Increase SOI/ROM

- Hypocalcemia
- Asthma exacerbation
- Necrotizing enterocolitis
- Hypovolemic or hemorrhagic shock
- Cerebral edema
- Brain death

Secondary Diagnosis Altering Neonatal MS-DRGs

- Secondary diagnoses that can alter DRG
- Neonatal sepsis
- Hypoglycemia of newborn
- ABO incompatibility
- Hypocalcemia
- Respiratory distress syndrome (RDS) type 1

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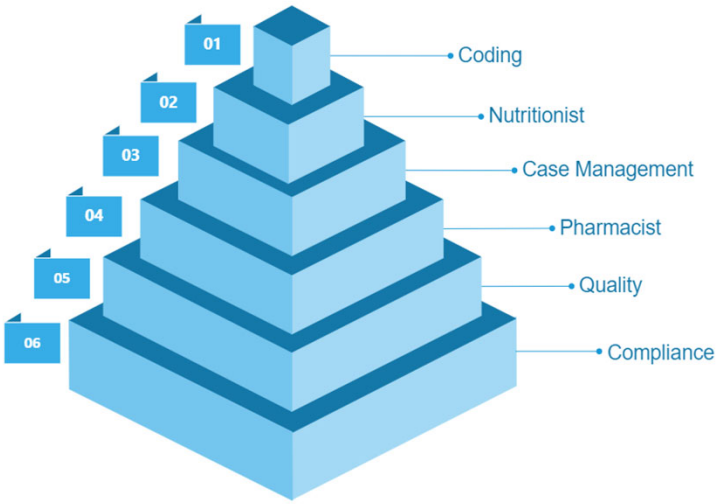
Building Collaborative Relationships

Why Do We Collaborate?

- Assist in aligning goals across the organization
- Combining education efforts since CDI provides continuous provider education
- Prevent communication errors
- Partner with IT in modifications and/or new platforms within the EHR, or provide understanding into CDI platform technology for initiatives with other departments
- Deliver current updates from governances
- Develop and/or implement evidence-based projects

Other Key Stakeholder Collaborations



Who Do You Reach Out to First?

- Coding department
  - Establish who the pediatric coders are for facility and professional (profee)
  - Ask where to find pediatric resources
  - Which diagnoses are currently denied by payers
- Nutritionist and/or pharmacist
  - Depends on diagnoses often missed or denied
  - Inquire what providers commonly request during huddles or orders
  - Develop guidelines or other clarifying questions before sending CDI queries
- Case management
  - Close relationship with providers
  - Can help get queries answered
  - How their roles and responsibilities impact the children's hospital
- Quality and compliance
  - Establish who covers pediatric service lines for compliance requirements
  - Investigate which HACs/PSIs/NQIs are reviewed at organization
  - Identify technology for quality outcome reports
  - Confirm workflow

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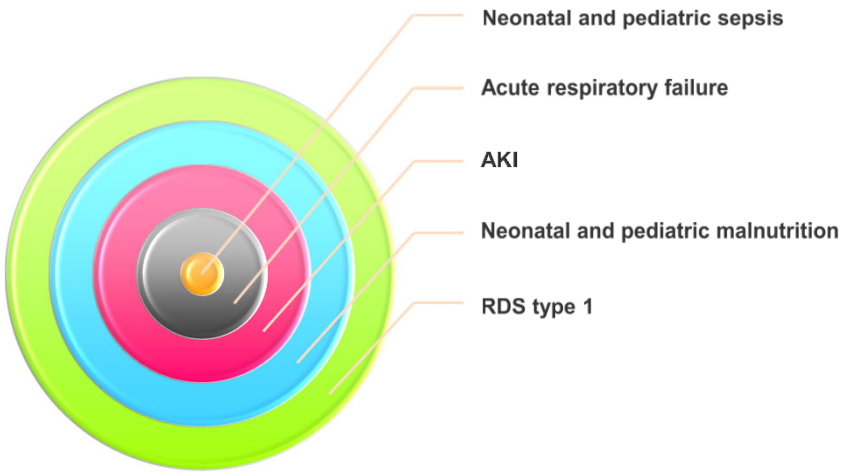
Develop Policies and Procedures

Why Organizations Need Policies and Procedures

- Unify organizational system guidelines
- Inclusion in appeal letters to confirm providers approval of clinical guidelines being employed by the organization
- Facilitates structure and streamlined processes
- State or federal healthcare updates
- Improves high risk and outcomes of patient care
- Ensures compliance with regulatory and credentialed mandates

Policies and Procedures for Key Pediatric Diagnoses



Wake Forest Baptist Health
Brenner Children's Hospital

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Neonatal Malnutrition Criteria

(term < 30 days, preterm < 44 weeks)

Malnutrition Indicator Any indicator may stand alone to signify malnutrition	Mild Malnutrition	Moderate Malnutrition	Severe Malnutrition	Use of indicator
Decline in weight-for-age z-score	Decline of 0.8-1.2 z-score	Decline of > 1.2-2 z-score	Decline of > 2 z-score	- Not appropriate for first 2 weeks of life
Weight gain velocity (use online calculator www.peditools.org)	< 75% of expected rate of weight gain to maintain growth rate	<50% of expected rate of weight gain to maintain growth rate	<25% of expected rate of weight gain to maintain growth rate	- Not appropriate for first 2 weeks of life
Nutrient Intake	≥ 3-5 consecutive days of protein/energy intake ≤ 75% of estimated needs	≥ 5-7 consecutive days of protein/energy intake ≤ 75% of estimated needs	>7 consecutive days of protein/energy intake ≤ 75% of estimated needs	- Preferred indicator during first 2 weeks of life

Malnutrition Indicator Requires 2 or more indicators	Mild Malnutrition	Moderate Malnutrition	Severe Malnutrition	Use of indicator
Days to regain birth weight	15-18 days	19-21 days	>21 days	- Use in conjunction with nutrient intake
Linear growth velocity (use online calculator www.peditools.org)	< 75% of expected rate of linear growth to maintain growth rate	<50% of expected rate of linear growth to maintain growth rate	<25% of expected rate of linear growth to maintain growth rate	- Not appropriate for first 2 weeks of life - May be deferred in critically ill unstable infants - Use in conjunction with accurate length measurements available
Decline in length-for-age z-score	Decline of 0.8-1.2 z-score	Decline of > 1.2-2 z-score	Decline of > 2 z-score	- Not appropriate for first 2 weeks of life - May be deferred in critically ill unstable infants - Use in conjunction with accurate length measurements available

Assessment of fluid status should be included and clinical judgement is essential

Considerations

- Preterm infants reaching a PMA of 40 weeks should be converted to a term growth chart (WHO or NCHS)
- Preterm infants >44 weeks and term neonates reaching an age >30 days should be converted to the pediatric malnutrition screening tool
- Infant born <37 weeks should have their anthropometric measurements adjusted for prematurity

Birth Weight Classifications

Small for gestational age (SGA): Z-score < -1.28 (<10%ile) - may be well nourished or malnourished
Appropriate for gestational age (AGA): Z-score between -1.28 and 1.28 (10-90%ile)
Large for gestational age (LGA): Z-score > 1.28 (>90%ile)
Intrauterine growth restriction (IUGR): May be SGA or AGA, may or may not be malnourished at birth. If patient with decreased nutrient stores, may develop malnutrition quickly if nutrient intake insufficient.

Department of Clinical Nutrition. Last revised: May 2018

Neonatal Malnutrition Example

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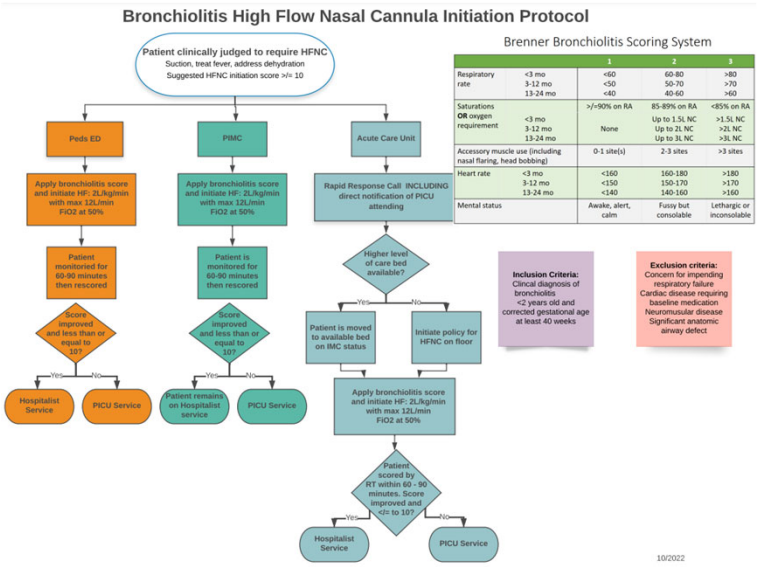
RSV-HFNC Protocol: Possible QR Code



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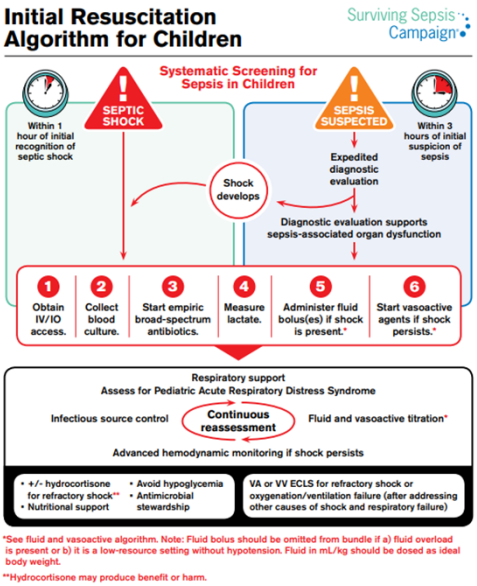
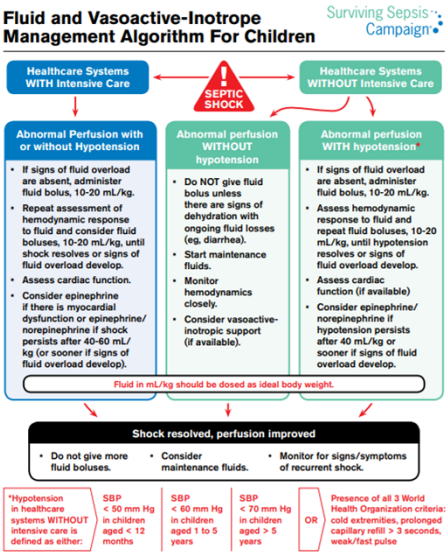
Sepsis Protocol for PICU



Vital Signs	
Cardiac Rhythm	
Heart Rate Source	
Resp	
BP Location	
BP	
MAP (mmHg)	
BP Method	
BP Cuff Size	
Patient Position	
Unable to obtain vital signs due to:	
Section 1: Signs/Symptoms of Infection	
Hyper- or Hypothermia (> 38.3/101F or < 36C/96.8F)	
Acutely altered mental status	
Chills with rigors	
Tachycardia	
Tachypnea	
Leukocytosis or Leukopenia	
Hyperglycemia (Plasma glucose >120 mg/dL)	
Hypoglycemia (Plasma glucose <30 mg/dL)	
Infection Criteria Met (Score >1)?	
Critical Value/Result(s) Communication INITIATION	
Critical Value/Result(s) with read back	
Received Time	
Caller Name	
Caller Department	
Critical Value/Result(s) Communication COMPLETION	
Name of provider communicated with who read back crit…	
Time critical value/result(s) verbally communicated to pr…	

Septic Shock Protocol PICU



https://www.sccm.org/SurvivingSepsisCampaign/Guidelines/Pediatric-Patients

https://www.sccm.org/getattachment/SurvivingSepsisCampaign/Guidelines/Pediatric-Patients/Initial-Resuscitation-Algorithm-for-Children.pdf.aspx?lang=en-US

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Denial Management

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How Can CDI Help With Denial Management

Denial Management

Apply
Clinical, coding, compliance knowledge and experience.

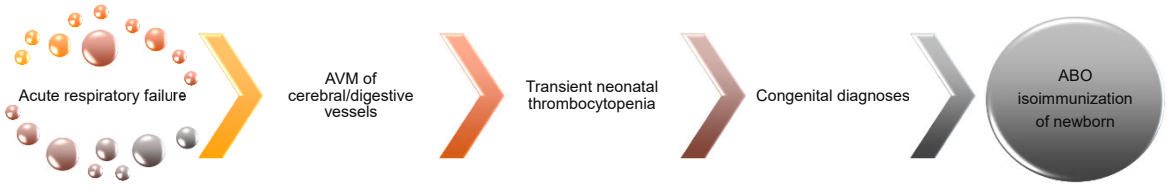
Validate
Review and include clinical evidence from the medical record in the appeal letter.

Query
Send providers validation queries concurrently during patient's hospital stay to help prevent denials based on high-risk diagnoses.

Provider and CDI education
Incorporate denial cases with DRG downgrades after multiple appeals and high-risk diagnoses as an additional way to prevent denials.

Collaborate
Work alongside coding and physician advisor to integrate ICD-10-CM *Official Guidelines for Coding and Reporting*, *Coding Clinics*, and medical journal articles to defend accurately reflected diagnoses within the medical record.

Various Pediatric Denials



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Denial Case: MS-DRG 794 Successful Appeal

- Downgrade appeal level 2 for MS-DRG 795 (payer)
- Date: 10/3/2020
- Payer denial for secondary diagnosis code assignment of Q2730, Arteriovenous malformation of cerebral vessels. Payer cited that admission is for single liveborn infant, delivered vaginally and condition of arteriovenous malformation of cerebral vessels did not indicate that diagnosis met the UHDDS definition of secondary diagnosis during this episode of care.
- Rebuttal: We pursued this case by referencing the inclusion of ICD-10-CM *Official Coding Guidelines for Coding and Reporting,* Chapter 17: Congenital malformations, deformations, and chromosomal abnormalities (Q00-Q99). Whenever a condition is diagnosed by physician (provider), it is appropriate to assign a code from codes Q00-Q99.
- Rebuttal: We referenced Chapter 14: Congenial anomalies coding guidelines 10/2/2008 ICD-9 CM *Coding Clinic*, fourth quarter 2008. Codes from Chapter 14, may be used through the life of the patient. If a congenital anomaly has been corrected, a personal history code….Whenever the condition is diagnosed by the physician, it is appropriate to assign the code from codes 740-749. For the birth admission, the appropriate code category from category V30, Liveborn infants according to type of birth should be sequenced as the principal diagnosis, followed by any congenital anomaly codes, 740-759.

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Denial Case: MS-DRG 101 Successful Appeal

- Downgrade appeal level 2 for MS-DRG 101 (payer)
- Date: 8/5/2021
- Payer denial for secondary diagnosis code assignment of acute respiratory failure with hypoxia (J9601). The claim stated that there was a lack of clinical validation for the diagnosis and there was insufficient clinical evidence and supportive documentation in the records to substantiate coding this condition.
- Rebuttal: The case was pursued presenting the documentation of the diagnosis in the records as well as highlighting the criteria based on the recent peer reviewed article on pediatric clinical criteria for respiratory failure. Objective criteria of desaturation (SPO2 73%) on room air (RA); calculated P/F ratio with clinical peer reviewed clinical reference to provide definition of pediatric respiratory failure.
- References: Peer reviewed articled published in the American Academy Pediatrics, *UpToDate*

Denial Case: MS-DRG 853 Unsuccessful Appeal

- Downgrade appeal level 2 for MS-DRG 340 (payer)
- Date: 4/20/2021
- Payer denial for principal diagnosis code assignment of sepsis (J9601). The claim stated that despite diagnosis of sepsis documented on discharge summary, there was insufficient supportive documentation in the records to validate coding of A419.
- Rebuttal: The case was pursued presenting the documentation of the diagnosis in the records as well as highlighting the criteria based on the recent peer reviewed article on pediatric clinical criteria for sepsis. Clinical criteria present on the records were lactic acidosis (2.8 on admission; elevated WBC/CRP, febrile, and tachycardia).
- This was not overturned as the clinical validation to support the sepsis was not very clear on documentation and this was leaning towards the local infection (appendicitis) instead.
- References: https://www.sccm.org/SurvivingSepsisCampain/Guidelines/Pediatric-Patients and *UpToDate*: Acute Appendicitis in Children

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Creating Pediatric CDI Education

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Onboarding Pediatric CDI Reviewers

- Supporting scholarly articles, *Coding Clinics*, query templates, and technology resources utilized within the organization
- Develop a quiz for new pediatric CDI staff, and even for veteran reviewers who are moving over to the pediatric service line
  - 20-question of clinical scenarios
  - Mix of easy, medium, and challenging questions
  - 15 out of 20 correct equates to a good score
  - Identify query opportunities
  - Locate *Coding Clinic* references
  - Use ICD-10 CM Code Book to find ICD-10 codes
- Be resourceful in mixing in a few difficult cases while making it fun and exciting. Even if everyone gets them wrong, such cases can illuminate good critical thinking and indicate a willingness to perform research, which are keys to success in this setting (a tough case to identify the correct code in the ICD-10-CM Manual is chronic obstructive pulmonary disease and dysgenesis of the corpus callosum).
- Collaborate with quality and compliance for CDI to attend the provider or resident onboarding sessions

Quick Tips for CDI

Create CDI department shared folder/Unified team communication platform

Information should be included for pediatric service line coverage:

- Share key points on covering other service lines
- Communication and documentation barriers
- Top queried diagnoses for each service line
- Location of hospital policies and procedures
- Advice on places within the EHR that everyone might not utilize
- Technology, scholarly publications, and *Coding Clinic* resources

Present education updates on payer denials with examples, modified policies and procedures, increased query opportunities, new obstacles with providers, etc.

Clinician Education

- Convey how CDI specialist/coders can help them during the patient's admission
- Share how their documentation affects all department for outcomes data, payer reimbursement, denial prevention, etc.
- Explain why they will receive queries from CDI such as:
  - Specificity
  - Conflicting documentation
  - Symptom with treatment/monitoring without specific diagnosis
  - Diagnosis fallen off documentation
  - Not carried through to discharge summary
  - Additional clinical support for diagnoses
- Encourage the clinicians to reach out with questions whether it be about documentation, queries, or other issues that are unresolved

Quick Tips for Clinicians

Tip cards

- Documentation
  - Dos and don'ts
  - Validate diagnoses without specificity and/or clinical support
- EHR
  - Location of query and MS-DRG
  - Frequent issues for clinicians within system

Department contacts for questions outside CDI's scope/responsibilities

- Compliance
- Profee and facility coder
- Quality
- IT for EHR or other technologies used
- Denial management
- Physician advisor

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Query Example

A 9-year-old male

Assessment and Plan

Symptoms

- Coughing, rhonchi, wheezing,
- CXR showed opacities on base LLL and URL
- Emesis found in patient's mouth
- Day 3 Sats 85, incomplete sentences, 8L HFNC

Medical History

- Moderate persistent asthma
- NICU stay 32 weeks prematurity

Surgical History

- None

Treatment/Monitoring

- Albuterol Nebulizers q4H; continuous pulse ox
- Dexamethasone
- Vanc
- Zosyn IV D/C'd, started on Rocephin IV
- Pulmonary Consult

Admission MS-DRG/APR-DRG Status

Original Diagnoses

~Pneumonia (PNA)
~Severe respiratory distress
~Moderate persistent asthma exacerbation
~Hypoxic

MS-DRG 194 with CC	
Relative Weight	0.8402
G/LOS	2.3
SOI	2
ROM	1

Translation from diagnoses into ICD-10 and CPT-RVU codes

Discharge MS-DRG/APR-DRG Changes After Query

Final Diagnoses

~Aspiration PNA
~Acute hypoxic respiratory failure
~Moderate persistent asthma exacerbation

MS-DRG 177 with MCC	
Relative weight	1.7799
G/LOS	5.2
SOI	3
ROM	2

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Thank you. Questions?

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