Risk Management for Telephone Triage: Preventing Medical Liability

Barton Schmitt MD, FAAP
barton.schmitt@childrenscolorado.org
Pediatric Call Center, Children’s Hospital Colorado
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Disclosures

• I write decision-support guidelines for pediatric telephone triage and advice
• I will not discuss any commercial product during this presentation
• I have no conflicts of interest for this presentation
Learning Objectives

Participants will be able to:

- Define risk management as it relates to telephone care
- Define malpractice as it relates to telephone care
- Prevent triage errors that lead to telephone liability
- Teach about serious triage errors in advance
- Detect any serious triage errors in your call center using a QI process
Medical Risk Management Defined

- Identify potential adverse outcomes for your service
- Prioritize them by severity and/or frequency
- Design strategies to prevent or minimize those risk factors
- In telephone triage of sick patients, the main risk is delayed referral of a seriously ill child to medical resources
- Also known as ED Under-Referral
ED Under-Referrals: Consequences

• Delayed diagnosis and delayed treatment
• Increased medical complications and adverse outcomes for patient
• Increased malpractice liability for triage nurse, medical director and hospital
• Goal: zero ED under-referrals
• Goal: zero adverse outcomes or near miss events
Malpractice Defined: 4 Ds

To sustain a malpractice lawsuit, plaintiff’s lawyer must prove:

- **DAMAGE** to patient
- **DUTY** to treat or help caller
- **DIRECT CAUSE**: Damage caused by our Care (triage and advice)
- **DEVIATION** (Departure) from Standard of Care
1st D - DAMAGE

Permanent harm or injury to patient including:

• Death
• Disability
• Disfigurement
• Unnecessary loss of all or part of an organ
2nd D - DUTY to Treat

• Contract (legal relationship) between a HCP and the patient has been established
• Contract begins when we start our assessment or provide any medical advice
• Triage nurse AND supervising physician are accountable for any call that nurse takes
• Contract ends when medical problem is resolved or duty is transferred to another HCP
3rd D - DIRECT CAUSE

- Causal link between triage nurse’s recommendation and Damage
- Common pathway:
  - Serious medical condition not recognized
  - Patient not referred to medical care
  - Treatment was delayed
- Damage starts or progresses after the call is made
4th D - DEVIATION from Standard of Care

• Standard of Care (SOC) definition: what a reasonable physician or nurse would have done
• The charge in malpractice: The urgency of the symptom would have been recognized by a reasonable triage nurse at the time of the call (SOC)
• AAACN Standards of Practice 2011: “Telehealth nursing practice utilizes clinical decision-support tools that are verified and documented”.
• Triage nurse failed to adhere to protocol or to apply existing knowledge (SOC)
Prevention of ED Under-Referral: Strategies

• Train new hires to recognize serious pediatric symptoms (red flag symptoms)
• Review various presentations of serious conditions at monthly staff meetings (CNE)
• Discuss actual cases from call center QI findings
• Use recordings of actual calls to demonstrate audio clues, such as stridor or grunting respirations
• Have all triage nurses do peer reviews to improve critical thinking skills
Training New Triage Nurses

Triage Nurse Mantra

• Get the Right patient (accurate assessment)
• To the Right place (resource)
• At the Right time (disposition)
• By the Right transportation (EMS vs car)
Training New Triage Nurses: Protocols to Review

• Give printed copy of 5 protocols for self study:
  ✓ 911 Calls (red flag symptoms)
  ✓ Breathing Difficulty-Severe
  ✓ Newborn Acts Sick
  ✓ Spells
  ✓ Weakness

• Education on serious symptoms and diseases not to miss
High-Risk Diagnoses for ED Under-Referral

• Focus teaching on not missing:
  ✓ Meningitis
  ✓ Appendicitis
  ✓ Respiratory Distress (with Pneumonia, Bronchiolitis, etc)
  ✓ “Baby Emergencies”

Meningitis and Malpractice

• Definition: infection of meninges
• Most prevalent lawsuit
• Median age 2 years (includes viral)
• Initial contact where diagnosis missed: office 36%, ED 30%, telephone 18%
• Stiff neck and headache are consistent findings only after age 2
• Initial misdiagnosis: mainly URI or Influenza
• Outcome: major damage such as MR, deafness
• Average payment: $433,000
• Source: McAbee, 2008
Bacterial Meningitis: Teaching Red Flag Symptoms

- Age: 80% occurs before 24 months
- Presenting symptoms subtle in this age group
  - Lethargy (altered mental status)
  - Pain
  - Weakness
  - Bulging fontanel
  - Vomiting with fever 50%
  - Febrile seizure 30% (or apneic spell)
Altered Mental Status: 4 Levels

• **Alert:** Normal mental status

• **Delirious (Confused):** Awake but confused talking, thinking, behavior.

• **Lethargic:** Very sleepy but can be awakened with verbal or tactile stimuli. When awakened, not alert.

• **Stuporous:** Very difficult to awaken and only responds to painful stimuli

• **Comatose:** Persistent LOC. Doesn’t awaken to painful stimuli.
If less than 3 years old, lethargy equals altered mental status (AMS)!

- Not alert when awake
- Acts “strange”
- Little facial expression
- Decreased eye contact
- Can’t seem to focus
- Little spontaneous movement
Lethargy (AMS): Detection in Young Children - 2

- Doesn’t seem to recognize the parent
- Doesn’t interact with the parent or environment
- Decreased spontaneous talking or babbling
- Doesn’t respond to questions
- Doesn’t follow simple commands
Crying of unknown cause is from pain until proven otherwise
Inconsolable crying usually means severe pain
Paradoxical crying (worse when held) means a serious cause
Pain can give whimpering or a moaning cry
Summary: Irritability and lethargy are the earliest signs of meningitis in young children
Weakness:
Detection in Infants Who are Not Yet Walking

- Loss of motor milestones such as turning over, sitting, crawling, pulling up
- In the early months, loss of head support or spontaneous movement of the limbs
- Weak cry or suck
- Droopy face or eyelid
Appendicitis and Malpractice

• Definition: secondary infection of obstructed appendix
• 2nd most common lawsuit (McAbee 2008)
• Charge: delay in diagnosis caused unnecessary perforation and peritonitis (or septic shock)
• Reality: Seen twice before correct diagnosis made (27% of cases)
• Initial misdiagnosis: mainly viral gastroenteritis
• Average payment: $132,000
Appendicitis: Teaching Pattern Recognition

- Peri-umbilical pain for 4-12 hours initially
- Then progresses to constant RLQ pain
- Movement: increases pain (prefers to lie still)
- Position: lies on side, hips flexed, curled up
- Walking: refuses or walks bent over and holding lower abdomen
- Jumping or hopping: pain increases
- For any of the above, refer in now even if vomiting is the main symptom
- Associated fever 50% and vomiting 60%
Distinguishing Appendicitis from Gastroenteritis - 1

Gastroenteritis (GE) is the most common cause of acute onset abdominal PAIN

- Appendicitis accounts for 1 or 2%

GE: intermittent mild PAIN, pain goes away completely when not vomiting

- Appendicitis: constant PAIN, but may diminish

GE: PAIN doesn’t interfere with activities

- Appendicitis: pain interferes with activities
Distinguishing Appendicitis from Gastroenteritis - 2

GE often starts with VOMITING

- Appendicitis: vomiting (present 60%) usually starts 12 hours after the abdominal pain. Exception: Vomiting can be the first symptom in younger children.
- **Key:** All patients with isolated vomiting as a chief complaint need to be asked to walk and hop.

GE progresses to associated DIARRHEA

- Appendicitis: diarrhea is usually absent (Exception: from pelvic appendix)

FEVER not helpful in distinguishing GE from appendicitis
Perforations: Not Always Preventable

- Perforation rates are inversely related to age
- Age: 90% for < 2 years; 70% for 3-5 years; 30% for 6-12 years; 10% for teens
- To prevent lawsuits, refer in with the first call
- Result: even if a perforation is present on ED arrival, that is not a delayed diagnosis
Appendicitis Nurse Strategy

- New Role: nurse who reviews all appendicitis cases we have sent to ED
- Presents findings quarterly at staff meetings
- Gives tips on recognizing appendicitis
- In 3 years since adding an “Appy Nurse”, we have only not referred 1 case
Respiratory Distress

• Recognizing *Respiratory Distress*: an essential skill for telephone triage nurses
• Reason: respiratory arrest is the primary cause of death in young children
• Always R/O *Respiratory Distress* in any respiratory guideline: Cough, Croup, Flu, Wheezing, even Colds
• Many parents don’t recognize respiratory distress or other serious symptoms
Respiratory Distress (RD): Detection

- Normal breathing: effortless, quiet, slow
- **Mild RD:** tachypnea without dyspnea
- **Moderate RD:** working to breathe, some retractions, some wheezing or stridor may be present, but not tight
- **Severe RD:** struggling to breathe, severe retractions, difficulty eating or speaking, worse with walking
Imminent Respiratory Arrest

- Grunting or moaning respirations
- Slow, weak, shallow breathing
- Gasping for breath
- Barely able to suck
- Barely able to cry
- Cyanosis
Case Study: 6-month-old healthy girl - 1

- Reason for call: “Wheezing for 2 hours”
- Runny nose, cough and fever to 102 F started 8 hours ago
- Difficulty breathing and wheezing. Mom has asthma since childhood.
- Best Guideline?
- Best Disposition?
Case Study: 6-month-old healthy girl - 2

- Wheezing guideline
- Disposition given: Go to ED now
- Outcome: child stops breathing in car while driving to hospital
- Father starts driving through stop signs
- It’s a snowy night and he crashes into another car
- What happened?
Apnea and no Paramedic
Breathing Symptom Recommendations

**Lesson 1:** listen to child’s breathing
- Recognize sounds of severe respiratory distress: grunting, weak or absent cry, groaning, moaning, tight wheezing or stridor. These need 911.

**Lesson 2:** ask about retractions and cyanosis.
- These need 911 and parent may not mention.

**Lesson 3:** consider EMS 911 option whenever you send child to ED.
- Ask yourself: could this child stop breathing enroute?
- Apnea risk is high for infants < 6 months with respiratory distress.
- Ask about availability of car, ED selected and travel time.
Cyanosis: Ask about It

- Central cyanosis is a bluish color of the mouth, tongue, gums, lips, face or trunk.
- It starts to become visible at O2 sats of 80% or less.
- As O2 sats drop lower, the color becomes deeper blue/purple.
- Blue-gray or gray color is a late finding for cyanosis. Gray is always more serious than blue.
- Summary: all blue or gray children need to be seen now. Most need a 911 disposition. Most need O2 enroute.
Risk Management Checklist for Nurse Managers

• Risk Management (RM) Checklist: 22 examples of errors in call center performance that can lead to adverse outcomes
• Sequence of list: incoming calls to call back instructions
• Use the RM Checklist to assess the safety of your call center system
• Then bulletproof it!
• 6 examples will be discussed.
**Error:** Delay in returning call about seriously ill child

**Example:** 4 week old with 102 F fever.  
**Outcome:** baby presents in septic shock and dies.

**RM:** Have incoming faxes screened and prioritized into emergent, urgent and non-urgent categories. Attempt to return emergent calls within 5 minutes and urgent calls within 15 minutes.  
• See Prioritizing Calls Checklist
Error: Protocols are not high quality (not accurate, complete or up-to-date)

Example: Herpes of newborn not addressed in newborn rashes protocol.

Outcome: Progresses to herpes encephalitis.

RM: Use protocols that are evidence-based and incorporate the current standard of care. Also should be expert-reviewed, tested and updated yearly.
Herpes Simplex Virus Infections- Newborns

- Skin form: clusters of small vesicles, pustules or crusting (70% start)
  - Usual site: head, face and shoulder
  - Onset within first 4 weeks (usually during 2nd week)
- Disseminated HSV infection: 50% die
- CNS infection: 70% sustain brain damage
- Earlier diagnosis and IV acyclovir reduces complication rates
**Error:** Triage nurse accepts PCP prior acute diagnosis

**Example:** Child with diagnosis of gastroenteritis from PCP encounter yesterday. Nurse doesn’t consider other diagnoses.

**Outcome:** Appendicitis missed and goes on to perforate.

**RM:** Always assess thoroughly. Acute symptoms can change and lead to new diagnosis. It’s OK to question PCP diagnoses.
Error: Triage nurse doesn’t ask about chronic disease

Example: Child with SSD, fever and URI symptoms.
Outcome: Dies of pneumococcal sepsis.

RM: Always ask about chronic disease to identify patients at special risk.
**Error:** Triage nurse accepts caller’s story for injuries and doesn’t consider child abuse.

**Example:** Infant with bruises from falling off sofa.

**Outcome:** Next injury is subdural hematomas from SBS. State CPS investigates your call center service.

**RM:** Use protocols that include inflicted injuries (child abuse) in the differential diagnoses. Have unit policy about mandatory referral and reporting.
**Error:** Nurse tells caller to go to ED, but doesn't underscore when to go.

**Example:** 3 year old with testicular torsion. Nurse tells caller to go to ED, family goes 6 hours later.

**Outcome:** Testicle not viable.

**RM:** When refer to ED, give a time frame. Verify caller's understanding and acceptance of the disposition and time line.
Telephone Malpractice: How to Manage

• Reality: Good documentation won’t help you defend these 6 examples
• These are true telephone triage malpractice
• Response: Settle out of court
• Key is prevention!
• Use the Risk Management Checklist
Risk Management: Covered So Far

- New staff Training program
- Continuing triage nurse education
- Protocols (decision-support tools)
- Policies and procedures
- Quality improvement program
Telephone Triage Protocols or Guidelines

- Definition: evidence-based decision-support tools for telephone triage and advice
- Provides a Standard of Care (consistent care)
- Prevents omission of important questions
- Reduces triage errors and liability
- Allows you to re-construct and defend triage on any specific case
- Use protocols that are updated yearly
Protocol Update Process: What is Included

- Scheduled yearly feedback from 12 large call centers
- Random feedback from users
- Outcome findings from QI program at our call center: focused on ED Under-Referral and ED Over-Referral
- Changes in AAP, CDC, FDA, etc guidelines
- Reviews of published research in 10 pediatric journals
- Consensus-based recommendations from 2 PCP panels
- Subspecialist expert reviews (hired)
Safe Options when Triage Nurse is Unsure

• Discuss concern with more experienced nurse
• Discuss with ED attending for hospital-based call centers
• Do follow-up call in 1-2 hours
• Refer call to on-call PCP
• Refer patient to be seen now
• Summary: always err on side of patient safety
• Source: How to Take a Call Policy
Risk Management: Covered So Far

- New staff training program
- Continuing triage nurse education
- Protocols (decision-support tools)
- Policies and procedures

Quality improvement program
Quality Improvement Projects and Risk Management

- Focus your QI on the detection of ED Under-Referral
- Your goal is zero, but you will always find some
- EHR systems make outcome studies easier
- Outcomes tell you what happened in the real world
- Reviewing bad outcomes leads to safer triage
- Teach all your staff about what you find
## QI Benchmarks: Based on Call Review

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<th>Metric</th>
<th>Standard</th>
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</thead>
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<tr>
<td>Correct Guideline Selected</td>
<td>&gt; 95%</td>
</tr>
<tr>
<td>Complete Assessment</td>
<td>&gt; 90%</td>
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<tr>
<td>Correct Disposition Reached</td>
<td>&gt; 95%</td>
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<tr>
<td>Proven Under-referrals to ED</td>
<td>None</td>
</tr>
<tr>
<td>Potential Under-referrals to ED</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>Over-referrals to ED</td>
<td>&lt; 10%</td>
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QI Reviews by Guideline without Outcome Data

- Method: Review 100 calls for quality of decision-making
- Mainly check for accuracy of dispositions
- Target a high risk topic (not random calls)
- Reason: can’t review every call
- Pick symptoms that have high call volume AND also have some serious causes
High-Risk Protocols (Acute Symptoms) for ED Under-Referral

- Crying
- Vomiting without Diarrhea
- Abdominal Pain
- Headache
- Head Trauma
- Cough
- Croup
- Fever
High-Risk Patients for ED Under-Referral

- Newborns
- Age < 1 year
- Chronic or complex disease patients
- Post-hospitalization patients
- Post-op patients
- 3 calls within 24 hours
- Night calls: midnight to 5 AM
24 Hour Admission Reviews: Outcome-Based QI

- Definition: all hospital admissions that were triaged within the previous 24 hours by call center nurse and not referred to ED
- Advantage: focuses on outcome data rather than subjective data from chart reviews
- Detects potential ED Under-Referrals that no one complains about
24 Hour Admissions: Review Process

• Compare daily hospital admission list to list of calls your call center took within previous 24 hours
• Software Report: EHR report matched to patient names in our triage call software
• Flag and review any case where patient not referred in urgently (called Potential ED Under-Referrals)
• Nurse Manager and Medical Director review these calls
• Admitting diagnosis is recorded
• ED notes are reviewed for symptoms and physical findings on ED arrival that point to the admitting diagnosis
• Call documentation report and call recording reviewed for presence of any of these symptoms at the time of the call
• Determine if case is actual ED Under-Referral
24 Hour Admissions: 2013 Results

- Total admissions that called us first: 665
- Total number not referred to ED now: 63 (9.5%)

Results from Review:
- Reason for call unrelated to Adm Dx: 7 (11%)
- Natural progression of the disease: 53 (84%)
- ED under-referrals per review: 3
- 1 per 222 of all admission calls (0.45%)
- 1 per 10,000 total calls (0.009%)
- Deaths: none
Reason for Call was Unrelated to Admitting Diagnosis (3 examples out of 7)

Reason for Call: Circumcision question
   *Admitting Diagnosis: Apneic episode (BRUE)*

Reason for Call: Sore throat
   *Admitting Diagnosis: Leukemia*

Reason for Call: Skin rash
   *Admitting Diagnosis: Diabetic ketoacidosis*
Natural Progression: Patients triaged appropriately but not referred to ED

- Definition: [1] no indication for ED referral at time of the call AND [2] findings in ED WORSE than findings reported on call recording
- Assessment: natural progression of the disease, based on listening to call recording and reading ED admit notes
- Diagnoses that progress: over 90% were pneumonia, bronchiolitis and asthma
- Reason for admission in above: hypoxia with or without respiratory distress
ED Under-Referrals per Review: Definition

Requires all 3 criteria:

[1] Serious symptoms present at time of the call AND
[2] Child not referred to ED AND
[3] Serious diagnosis made in ED (one that requires hospital admission)
ED Under-Referral: 2013 Cases

3 yo: appendicitis (ED 5 hours later)
  • *Triage error*: “cries if press on R side”, but asleep now. Saw PCP today, on antibiotic.

5 yo: pneumonia/O2 sats 65% (ED 17 hours later)
  • *Triage error*: high risk pt with trach, new productive cough, fever, but asleep now

15 mo: intracranial bleed (ED 3 hours later)
  • *Triage error*: missed AMS in infant (“dazed, staring, slow to respond”) who fell off porch
Hospital Admission Calls: QI Summary

- Goal: No ED under-referrals
- Reality: 3 per 665 adm. calls (0.5%)
- Fortunately: no adverse outcomes (death or disability)
- QI Action Plan for Under-Referral cases:
  - Individual nurse education/monitoring
  - Teaching case for all staff
  - Guideline changes when indicated
  - Guideline topic for 100 chart QI review
- Perspective: 99.5% of adm. calls were sent in
Good Catches for October 2016

Jeni for 22 month old with continued vomiting.
  • *DX: duodenal obstruction*

Susan for 11 day old with “shallow” breathing but no fever.
  • *DX: hypoxia*

Carrie for 2 year old with 1 minute episodes of severe pain every 30 minutes.
  • *DX: intussusception*

Sarah for 13 year old with chest pain with deep breaths.
  • *DX: pneumomediastinum*
What's Changed in last Decade? 2006 vs 2016

Source: Pediatric Call Center, Children’s Hospital Colorado

• Home Care dispositions down: 46% down to 40%
• Emergent/Urgent dispositions up: 21% up to 24%

Reasons:

- Parents using more smartphone based and web-based self triage apps for minor illnesses and injuries.
- Yet same volume of calls about serious symptoms.
What’s Changed in last Decade? 2006 vs 2016

Source: Pediatric Call Center, Children’s Hospital Colorado

• Community service line calls have increased:
  15% increased to 36% of total call volume

Reason:
  □ Phone number listed on after-visit handout given in hospital ED and UC network.

• Fewer PCPs are providing 2nd level triage for ED referrals:
  30% decreased to 8% of practices

Reason:
  □ PCPs trust call center triage and have little incentive to reduce unnecessary ED visits
What’s Changed in last Decade? 2006 vs 2016

Source: Pediatric Call Center, Children’s Hospital Colorado

- More photos and video clips received from callers.
  - **Reason:** improved technology
- More home care instructions emailed or texted to callers after the call: increased from 1% to 20% of calls
  - **Reason:** over 250 pediatric care documents in software and linked to guidelines.
- More nurses work their shift from home: 80% now
  - **Reason:** nurse preference, technology and proven safety.
Risk Management Documents: Attached

- *Risk Management Checklist* for After Hours Call Centers
- *Good Call Checklist* to prove a call meets the standard of care
- *Prioritizing Calls Checklist* for triage nurses and call queue
- *911 Calls Checklist* for answering services
QUESTIONS?