Nurse Update Letter

Major Clinical Changes in Electronic Version

Pediatric Office Hours 2018

Barton Schmitt, MD, FAAP to Telehealth Nurses

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Yearly updates and new topics bring with them the responsibility to read and study the major changes in advance of implementation. Trying to learn new material while managing an actual call can be difficult. We hope this summary of changes will serve as a self-study guide, direct your reading and help you transition to the 2018 pediatric clinical content.

**New Protocols**
The 2018 version contains 242 protocols. This version contains 6 new protocols and 236 updated protocols.

Read, or at least scan, all *New Pediatric Protocols* listed below:
- Breastfeeding - Mother's Breast Symptoms or Illness
- Breastfeeding - Mother's Medicines and Diet
- Scorpion Sting – North America
- Skin Glue Questions
- Umbilical Cord - Bleeding
- Umbilical Cord – Early or Delayed Separation

**Title Changes to Existing Protocols**

There are 3 existing protocols that we made minor changes to the title:

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<th>Current 2018 Title</th>
<th>Prior 2017 Title</th>
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<td>Breast-Feeding Questions</td>
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**See More Appropriate Protocol (SMAP) Prompts**

- Updated with title changes as above
- Added SMAPs for our new protocols where appropriate
New References

• Every year, new references from the pediatric literature are reviewed and incorporated into the clinical content.

New Search Words

• Every year, new search words are added to existing protocols based upon repeated search testing.
• If you are uncertain which protocol is best for your patient, please enter a search word. The keyword search system has become very selective and should meet your needs.
• Do not use the “No Protocol Available” protocol without first trying at least two search words.

Indexes for After Hours Pediatric Protocols
There are 4 general indexes for these protocols. In addition, there is also a Behavioral Health index that specifically lists behavioral/mental health protocols. Indexes are contained in the Supplemental Information folder. Reviewing them may help you improve your protocol selection skills.
• Alphabetical Index
• Anatomical Index
• Behavioral Health Index
• System Index
• Type Index

After Care Instructions (ACIs)
• ACIs are handouts that cover what callers want to know about specific symptoms and some common diseases.
• They are written at a 6th grade or lower health literacy level.
• Many triage protocols have a matching ACI (s).
• They are completely compatible with the advice in the triage protocols.
• You can send the ACI to the caller at the end of your call.
• This process should reduce your call times. Reason: You can address the most pertinent Care Advice live and provide non-essential information via the ACI.
• Even more important, they help the caller with normal memory limitation and prevent repeat calls about forgotten advice.
• Ask your software vendor for information regarding these ACIs.
Universal Changes

Cough/Cold Medications Age Limit

This was changed from 4 years to 6 years in all protocols and drug dosage tables.

Epinephrine care advice was modified in all protocols:
FIRST AID FOR ANAPHYLAXIS – EPINEPHRINE (pending EMS arrival):
• Anaphylaxis is a life-threatening allergic reaction.
• If you have epinephrine (such as Epi-pen), give it now.
• Give epi first. Then call 911.
• Give the shot into the upper outer thigh in the leg straight down.
• Can be given through clothing if needed.
• A second (repeat) injection should be given if there is no improvement in 10 minutes.
• Over 66 pounds (30 kg): Give 0.3 mg. Epi-Pen or Auvi-Q (Allerject in Canada).
• 22-66 pounds (10-30 kg): Give 0.15 mg. Epi-Pen Jr. or Auvi-Q.
• Less than 22 pounds (10 kg): Give dose advised by your doctor.
• Auvi-Q also has a 0.1 mg epinephrine auto-injector for toddlers 16-33 pounds (7.5 – 15 kg)
• Benadryl: After giving the Epi-pen and calling 911, give Benadryl or other short-acting antihistamine by mouth. Do this if your child is able to swallow. Liquid or chewable Benadryl gives faster results than pills.
• RN Recheck: For severe symptoms that require epinephrine, call back in 10 minutes. Reason: confirm that 911 was called after epi was given.

Protocol Specific Changes

Asthma Attack
Added triage question about low pulse oxygen levels under “Go to Office Now” disposition:
• Pulse oxygen < 90% during asthma attack
  R/O: need for steroid burst

Bottle Feeding and Breastfeeding protocols
Fluoride drops are no longer recommended. Reason: The fluoride in toothpaste is very effective. For children at high risk for tooth decay, the child’s dentist may also apply fluoride varnish to the teeth.
Breastfeeding Questions
Split into 3 protocols:
• Breastfeeding - Baby Questions
• Breastfeeding - Mother's Breast Symptoms or Illness
• Breastfeeding - Mother's Medicines and Diet

Choking
Added the following See More Appropriate Protocol prompt:
• Baby and choking on formula or breastmilk
• Go to Protocol: Spitting Up (Reflux)

Infants who choke during a feed or from reflux, need to be triaged in the Spitting Up (Reflux) protocol. Reason: If severe, needs to be evaluated. A common cause of BRUE (Brief Resolved Unexplained Events).

Constipation
Added background information about why fruit juice is acceptable for treating constipation in infants:

Fruit Juice for Treating Constipation and the 2017 AAP Policy Statement
• The AAP Section on Gastroenterology and the AAP Committee on Nutrition 2017 policy statement recommended to “completely avoid fruit juice in infants before 1 year of age”. The recommendation was based upon the risk that early introduction of fruit juice might reduce needed milk intake and increase dental caries (baby bottle tooth decay).
• For over 20 years, the Constipation protocol has recommended low dosage fruit juice as a treatment for constipation in young infants. It is mainly used prior to the introduction of solid foods (baby foods). There have been no reports of harm.
• Miralax is now FDA approved for use after 6 months of age, but many parents prefer to treat constipation with diet changes rather than a medicine.
• Since the AAP policy was announced, the author has received feedback from several call centers and offices that giving fruit juice to babies was not standard of care.
• Here’s another way to look at this issue: The AAP recommendation is for healthy children. It is not about treating children with symptoms.
• In fact, on page 115 of the article, the authors do mention that using fruit juice for constipation is recommended by the North American Society of Pediatric Gastroenterology, Hepatology and Nutrition.
• UpToDate 2018 also addresses this issue: For infants who have not yet begun solid foods, acute constipation can be treated by the addition of undigestible, osmotically active carbohydrates to the formula, titrating the dose to induce a daily bowel movement. One such option is the addition of sorbitol-containing juices (e.g., apple, prune, or pear).
• For infants four months and older, two to four ounces of 100-percent fruit juice per day is a reasonable starting dose.
• For infants younger than four months, one to two ounces of diluted prune juice is a reasonable starting dose.

**Cough**
*Added to background information:*

**Home Remedies for Coughs in Infants.**
• Giving apple juice or corn syrup for cough is not evidence based.
• But both are safe, unlike OTC cough medicines.
• The warm apple juice has been in the Cough protocol since 2000.
• It was added for parents who want to be giving their baby something. It may have placebo value.
• The corn syrup is a safe replacement for honey. Honey (for children over age 1) of course has 2 published studies to support its efficacy.
• Please read the Background Information in the Cough topic for details.
• If the reader has a more effective home treatment, for cough, please share it with the author.

**Contraception – IUD**
*Added information on the newer IUDs available in the US and Canada.*

**Crying Before 3 Months**
*Added the following care advice for colic. It’s based on the premise that most crying babies who are healthy and recently fed are simply trying to fall asleep.*

**Falling Asleep on Their Own:**
• Often babies cry because they need to sleep. If over 2 hours have passed since the last nap, this could be the reason.
• You have tried different ways to comfort your baby. You fed him recently. Nothing you do seems to help your baby relax. If so, it’s time to get out of the way.
• Swaddle your baby. Place him on his back in his crib. Turn on some white noise or soothing music and leave the room.
• Let your baby fuss until he falls asleep.
• For some overtired babies, this is the only answer.

**Diarrhea**
• Added background information on the efficacy of fluid challenge for questionable dehydration followed by a Nurse Follow-up Call 2 hours. A small study in our CHCO call center (2017) found that on nurse call back, 65% of these children had urinated and did not need to be examined. (Reviewer: Jaime Klein RN, CHCO call center manager)
• Recommendation for your office: children with an abnormal decrease in urine but who act
normal, perform a fluid challenge at home followed by a nurse call-back. This strategy can prevent unnecessary referrals.

**Earache**
Added new *tria**ce question* to detect cellulitis of the outer ear:
- Outer ear is red, swollen and painful
  
  R/O: *cellulitis and risk for ear cartilage damage*

**Fever**
Added *background information* on immunization status of children in telephone triage.

### Non-Immunized or Under-Immunized Children with a Fever

- Some physicians recommend that "nurses should routinely ask about immunization status on every phone call where the child has a fever". I disagree with this suggestion for the following reasons:
- The immunization status does NOT change office-hours telephone triage about which children need to be seen. Serious symptoms and specific disease complications are thoroughly covered in all protocols. Nurses also can always opt to bring in a child who sounds seriously ill based upon their professional judgment.
- The immunization status, however, may impact the medical work-up of a child who is being evaluated within the office or ED setting. It may change the differential diagnoses for the child's symptoms or what testing might be needed for a febrile child.
- Our main concern is children who have not received their "Meningitis" vaccines (Pneumo, Hib and Meningococcal vaccines). Their risk for sepsis, meningitis, pneumonia and other SBI is higher. The protocols, however, are already structured to detect symptoms of these serious diseases and to send positive children in for evaluations. In addition, even though the bacteremia rate has gone down with vaccines, the protocol continues to include a question for detecting bacteremia, in children who have no symptoms except fever. (See Acute Fever Without a Source down below)
- The main scenario in which knowing the immunization status becomes a factor in telephone triage is for tetanus-prone wounds. This is covered in every injury protocol and discussed in depth in the Background Information of the Skin Trauma protocol. (see Tetanus Risk in Non- and Under-Immunized Children)
- Any child with a measles-like rash is seen whether or not they have received the MMR vaccine. Likewise, any child with varicella complications is seen whether or not they have received the Varicella vaccine.
- Any child with suspected influenza is seen if they develop any signs of complications (e.g., work of breathing or signs of dehydration), whether or not they have received the influenza vaccine.
- Trying to cover over the telephone which immunizations the child may or may not have received, can be time-consuming (adding unnecessary time per call and something a parent may not automatically know without looking at a child’s immunization record). For the majority of calls, this added time will not change the disposition of the call and is largely non-essential to phone triage.
• For practices that have a different view, offices may need to develop a separate policy for detecting and managing their partially and non-immunized children.

Fever
Added care advice on the importance of fluids and adequate hydration to fever management:
• Fluids alone can lower the fever. Reason: being well hydrated helps the body release heat through the skin.
• Encourage extra water or other fluids by mouth. Cold fluids are better. Until 6 months old, only give extra formula or breast-milk.

Added this clarification to background information:
Symptom With Fever versus Same Symptom Without Fever - What it means in split triage questions
• With fever means the child has a febrile illness.
• With fever includes tactile fevers.
• The child may or may not have a fever at the time of the call. It may currently be within normal range due to receiving a recent antipyretic.
• But “with fever” does require that the child had a fever recently, at a minimum within the last 24 hours.
• Very important for separating infectious from noninfectious diseases that cause the same symptoms.

Head Injury
Added an exception to care advice of only offering clear fluids for 2 hours following a head injury:
• Babies can continue breast feeding or formula.

Influenza-Seasonal
Added care advice to help us convince parents of the value of the flu shot:
• Flu shot protection lasts for the entire flu season. By contrast, an antiviral medicine only protects from flu while your child is taking it.

Added background information on the CDC’s 2018 recommendation for Tamiflu time limitations: 48 versus 72 Hours from onset of symptoms. The protocol stayed with 48 hours or less from onset of symptoms.

Influenza Follow-Up Call
Added triage questions and care advice for managing children who vomit Tamiflu.
Ask your office PCPs for approval or modification.

Motion Sickness
• Added new care advice on available products and dosing for Dramamine (dimenhydrinate).
  It’s the most widely used OTC medication for motion sickness.
Nasal Allergies
Added to background information:

How to Tell Seasonal Nasal Allergies from the Common Cold
- Symptoms happen during pollen season
- Had the same symptoms during the same month last year
- Hay fever symptoms last 6-8 weeks for each pollen. (Colds last 1-3 weeks).
- Both: runny nose and watery eyes. Can have a cough with both, but less common with allergies.

Seizure with Fever and Seizure without Fever
Added sublingual lorazepam (Ativan) to first aid section.

Skin Injury
- Added indications and contraindications in background information for Skin Glue (Dermabond) wound closure.
- Reason this is important for triage nurses: Some urgent care centers and offices no longer suture. They only provide Dermabond closures. Patients who need sutures are referred to an ED.

Sore Throat
Added a triage question and background information for trismus:

- Complains they can’t open mouth normally (without being asked)

Trismus is reported in 30-60% of patients with peritonsillar abscess.

Swallowed FB
Added first aid advice about giving honey every 10 minutes for suspected button battery ingestion. Caution: Don’t let this delay patient’s departure to the ED. See Children’s Hospital of Philadelphia reference for details.

Teething
Added care advice that FDA does not approve any products containing benzocaine for “teething”.

Tooth Injury
Added triage question for a crown or cap that comes off.
Umbilical Cord Symptoms
Split into 3 protocols:
• Umbilical Cord - Bleeding
• Umbilical Cord - Early or Delayed Separation
• Umbilical Cord – Discharge or Infected

Vaginal Bleeding- After Puberty
Added background information regarding the use of menstrual cups:

Sanitary Products
• Counting the number of sanitary products (e.g, pads, tampons) is one method to estimate the amount of vaginal bleeding. However, studies have shown that the top determinants for how many sanitary products a woman uses is personal hygiene preferences and financial resources. Keeping this in mind, here is a reference table:
  o A Blood Clot: 1 - 5 ml
  o Tampons (regular to super): 0.5 to 10 ml
  o Pads (day time to nighttime): 1-15 ml
  o Menstrual Cup: 10-30 ml. A cup holds about 30 ml when full. Most users empty cup when it is less than half full (around 10 ml).
• On average a woman will have 30-50 ml of vaginal bleeding per menstrual cycle.

Included menstrual cups in the definition of Vaginal Bleeding Severity.

Vaginal Bleeding Severity is described as:

• SPOTTING: pinkish/brownish mucous discharge, required less than 1 pad total
• MILD: less than 1 pad per hour, similar to menstrual bleeding
• MODERATE: blood clots, 1-2 pads/hour; 1 menstrual cup every 6 hours
• SEVERE: continuous red blood from vagina or large blood clots, more than 2 pads/hour or bleeding not contained by pads; 1 menstrual cup every 2 hours

Whooping Cough Exposure
Added detailed care advice about the indications for prophylactic antibiotics following exposure to active pertussis.
Evidence-Based Protocols and Updates

Yearly changes in these pediatric telephone triage and advice protocols are based upon the following resources and evidence:

- American Academy of Pediatrics (AAP) new clinical practice guidelines and policy statements (including updates in the AAP Red Book)
- Centers for Disease Control and Prevention (CDC) new guidelines or recommendations
- Food and Drug Administration (FDA) new regulations and advisories
- Cochrane Library of evidence-based medicine: new and updated reviews
- National Guideline Clearinghouse (NGC) new evidence-based guidelines
- New Clinical Guidelines from other national organizations (e.g. AHA, ADA)
- Research findings reported in this year’s pediatric literature
- Expert reviews of and recommendations for all specialty protocols by pediatric specialists in that field
- Consensus-based recommendations from 2 Expert Panels of community pediatricians (based in Colorado and in St. Louis, Missouri)
- Quality improvement projects that evaluate Emergency Department Under-referral and Over-referral (from our Pediatric Call Center at Children’s Hospital Colorado)
- Reviews and recommendations from the following call centers: Alberta Health Link, Canada; Asante Health System, Centene, CitraHealth, Cleveland Clinic, Evergreen Health Care, FoneMed, Marshfield Clinic, St. Louis Children’s Hospital/BJC, Sykes in Ontario, Canada; TeamHealth, and Triage Logic
- Reviews and recommendations from the following software vendors: ClearTriage and LVM
- Observations and questions from users, such as you. Your feedback is always welcome.

The protocols have undergone changes based upon review of the above mentioned resources. Triage nurses are encouraged to review targeted protocols using this self-study guide. We hope this summary of changes will help your transition and implementation of the 2018 pediatric protocols.