

Pediatric Surgery NaT Author instructions



Topic:
Authors:
Release:

(please do not commit to this project if you cannot meet the deadline – extensions will not be granted)

Thank you for volunteering to write content for the Pediatric Surgery NaT (Not a Textbook) project. With your help our goal is to provide practicing and training pediatric surgeons with an innovative educational tool that will improve the quality of care for our patients.

In exchange for each learning objective accepted for the Not a Textbook, the American Pediatric Surgical Association will award you one hour of continuing medical education credit (up to a maximum of ten) applicable towards the American Board of Surgery maintenance of certification requirements.

Overview

Adult learning theory and APSA's needs assessment confirm that subscribers use the Pediatric Surgery NaT in one of two ways.

Expert practicing pediatric surgeons require a reference that helps to quickly and efficiently fill clinical knowledge gaps close to the point of care. To address this need, the NaT is evidence based, searchable, indexed, web and mobile device accessible and organized around clinically relevant learning objectives. Content is linked to the APSA EXPERT CME platform to provide maintenance of certification self-assessment credits. Content is updated and expanded quarterly. Invited and submitted commentary offering alternative perspectives is encouraged. Notes and favorites can be saved to allow easy access for content most relevant to practice. An integrated graphic interface which links to the medical literature allows for more in depth PubMed searching.

Alternatively, novice pediatric surgery trainees need an approachable reference that can be digested in a linear fashion to develop a comprehensive fund of knowledge. The NaT will cover the breadth of the American Board of Surgery and Pediatric Surgery Training Program Directors' curricula as well as addressing ACGME competencies and milestones. Topics are organized in a consistent template format. Open ended discussion questions and linked references are provided to promote further discussion and study in a training environment. Links to content and references can be distributed as assignments to facilitate conferences.

Your generated content should cover the topic in depth as is appropriate for a comprehensive reference. The NaT is a reference and **more** than just a handbook.

Enlisting the help of your colleagues in generating content is strongly encouraged. Multiple topic authors are allowed and acknowledged. Authors do not need to be APSA members. Trainee and international contributions are encouraged. Please make sure we have an email address for any additional authors you add to the team so we can get them access to the APSA uPub submission and editing site (see below).

After reading this letter and reviewing the available modules, consider scheduling a conference call with your authoring team and one of the editors to answer your questions and get you started with the process.

Finally, feedback is strongly encouraged. Please feel free to contact any of the NaT editors with comments, criticism and suggestions at NaT@eapsa.org. This is your NaT.

Organization

Keep in mind that **you will not be writing for a textbook**. The organization of the project is as follows.

Sections (e.g. **Critical and Perioperative Care**) are divided into topics and subtopics.

Topics are disease-, concept- or problem-based (e.g. **Necrotizing Enterocolitis, Nutrition and Neonatal Intestinal Obstruction**, respectively).

Subtopics usually contain less material and share content with a parent topic. For instance, **Respiratory Care in the Neonate** is a subtopic under **Respiratory Care**. Most procedures have their own procedural subtopic. For instance, **Posterior Sagittal Anorectoplasty** is a subtopic under the **Anorectal Malformations** topic.

Content within each topic/subtopic is divided into templated *modules* (e.g. **Prevention**).

Each module contains discrete *learning objectives*. These are usually stated in the form of a clinically relevant question (e.g. **Does the use of human breast milk prevent the development of NEC?**). Most topics do not require content for every available module. Most modules will contain multiple learning objectives.

Importantly, each individual learning objective discussion is **limited to five thousand characters** (not including references) and **five references**.

Five sample topics are available for review in the upper right hand corner of the NaT home page at pedsurglibrary.com. Additional author materials are available in the NaT library at eASPA.org. To get to the library go to eapsa.org, click “Membership”, click “Members” and click “My communities” on the right side. Click “NAT” and “Documents” to get to the library.

Suggested authoring process

You and the members of your team are responsible for content generation for your topic. You may employ whatever workflow helps you submit a quality product prior to the deadline. Based on our experience working with previous release authoring teams, we’d suggest the following general process for authoring your content. Relax, it’s not as complicated as it looks.

1. Determine which of the available modules are appropriate for your topic.

Pediatric Surgery NaT modules

Introduction	Indications for surgery
Epidemiology	Surgical decision making
Basic Science	Preoperative preparation
Embryology	Steps of the procedure
Pathophysiology	Intraoperative Decision Making
Prevention	Postoperative care
Classification	Complications
Presentation	Outcomes
Assessment	Follow up
Anatomy	Research and future directions
Histology	Patient care guidelines
Staging	Perspective and commentary
Prenatal concerns	Discussion questions and cases
Indications for Medical treatment	Glossary
Medical treatment	Additional resources
Medical decision making	

The available module titles are defined with sample learning objective questions [here](#).

Your team does **not** need to author content for every available module. Include only the modules you think pertain to your topic. For example, the topic **Appendicitis** doesn’t have *Embryology* or *Prenatal concerns* modules.

Many of the modules have considerable overlap. Choose the ones that are best suited for your topic. Content will be able to link between modules so you don’t need to generate similar content for multiple overlapping modules.

As well, you are not responsible for content in the *Perspective and Commentary* module. This module will contain an invited perspective from an experienced

- surgeon (you may suggest someone) and reviewed reader comments. Please contact us if you would like to provide commentary for a topic you did not author.
2. Within authoring teams, it will be helpful to divide up the work by assigning each module to a member of the team. Please include these assignments in your submitted outline. Prior to release, all authors will be able to review and revise the entire topic.
 3. For each module, determine your learning objective(s). Try to phrase each learning objective in the form of a question. Most modules will have more than one learning objective. For instance, in the NEC module *Prevention* there are several learning objectives: ***Does the use of human breast milk rather than formula prevent the development of NEC?***, ***Do prophylactic probiotics reduce the rate of NEC?*** and ***Does the timing, rate of advancement or method of delivery of feeds affect the development of NEC?*** If covering a learning objective requires more than five thousand characters, consider breaking it up into multiple smaller objectives.
 4. Submit a draft outline. It will be helpful at this point to review your draft outline and learning objectives with your assigned editor(s). The purpose of this is to insure comprehensive coverage of the topic and avoid duplicating work with other authors and topics. Example outlines may be found [here](#). Once approved, outlines are not set in stone and may be changed as you complete your literature search and generate your content.
 5. Write your content. Each learning objective discussion is limited to five thousand characters and five references. Modules with a large amount of content should begin with a one to three sentence “executive” summary.
 6. Media is encouraged. The project will support media in the form of pictures, illustrations, high resolution color photographs, radiographs, tables, flow charts, animations and videos. It is the author’s responsibility to obtain copyright permission for previously published material. The authorization template is available in the NaT community library. Most media will be submitted directly into uPub. Videos should be loaded into the NaT Dropbox at <https://www.dropbox.com/l/sh/rx57BXBFv3Vvblvxt3YOgs> and will be published concurrently to the APSA section of CSurgeries.com. Embedded hyperlinks within your content are permitted and can direct the user to external websites and online videos (e.g. YouTube, CSurgeries).
 7. Cited references should include a level of evidence (level 1-5 and review) and clinical guidelines graded (grade A–I). Levels of evidence and guideline grades are defined [below](#). References are added directly into uPub using the PubMed search function. Keeping track of PubMed IDs is the best way to do this. The system then handles formatting, numbering and linking to PubMed for you. If covering a learning objective requires more than five references, consider breaking it up into multiple objectives.
 8. Write open ended discussion questions. Open ended questions will commonly be in the form of a clinical scenario presented to a trainee in order to promote discussion of patient management principles. Media can be included. Covering controversial subject matter is encouraged.
 9. You may also write continuing medical education multiple choice questions. Embedded in the content are links to the APSA EXPERT program. The existing EXPERT questions, discussions and media are copyrighted by APSA and you may use them as the basis for your CME questions. You may also use the related discussion texts, images and reference lists for your topic content. Instructions for writing EXPERT CME questions are listed [below](#). Media can be included. CME questions and a signed EXPERT disclosure form (available in the NaT community library) should be submitted to Meagan Comerford at mcomerford@eapsa.org.

10. Submit your content. As you near completion of your draft, you'll be given access to the APSA custom uPub authoring and submission web site. Citations will be formatted automatically in the authoring tool.

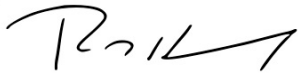
Copyright information

Content generated for the **Pediatric Surgery NaT** will be copyrighted and owned by APSA – not a commercial publisher. **Please sign the APSA Not a Textbook author release attached to your confirmation e-mail**. Your completed author copyright release should be returned to Meagan Comerford at mcomerford@eapsa.org.

Content should not have been published elsewhere. Media may not be copyrighted elsewhere or you must get the copyright holders permission in writing. A blank release form is in the **Pediatric Surgery NaT** community library. Completed copyright releases should be returned to Meagan Comerford at mcomerford@eapsa.org.

Thank you again for contributing to this great project. We are available for conference calls to discuss any questions you might have in person. Please don't hesitate to reach out to one of us individually or at NaT@eapsa.org if you have any questions.

Sincerely,



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Not a Textbook modules

Introduction

The introduction should be a concise abstract of the topic and highlight no more than three of the most important learning objectives for the topic. This module may address the following questions.

Why is this topic important to pediatric surgeons?

What are the most critical parts of the topic?

Which aspects of the topic are the most challenging for the pediatric surgeon?

What areas of the topic are most likely to change in the future?

Epidemiology

The epidemiology module should contain information about the incidence and distribution of the problem in the population and what characteristics or factors increase the likelihood of developing the problem. This module may address the following questions.

What is the incidence of this problem?

What is the prevalence of this problem?

How is this disease distributed across age, sex, race and geography?

What is the impact of this problem on society?

What is the baseline risk for developing this problem?

What risk factors are associated with an increased likelihood of developing this problem?

How much does each risk factor increase the likelihood of developing this problem?

Basic Science

Basic science continues to be a knowledge gap for both trainees and practicing surgeons. The basic science module should cover the normal molecular, biochemical or cellular processes related to the topic. Basic science content that does not currently have implications for clinical management should *not* be included in this section. Instead it should be included in the research and future direction module (below).

The basic science module may address the following questions.

What is the normal physiology related to the organ?

How does the basic science behind the disease influence patient care?

What are the important basic science principles that direct patient care?

Embryology

The embryology module should describe the normal embryonic and fetal development associated with the topic. Fetal interventions should *not* be discussed in this module. Instead they should be included in the prenatal concerns module (below). The embryology module may address the following questions.

How do the organs develop in the fetus?

What is the significance of the embryology in the development of associated anomalies?

How is an arrest in organ development responsible for the disease?

At what stage in development does a derangement in the embryologic process cause the disease?

Pathophysiology

The pathophysiology module should cover the abnormal anatomic or functional changes that occur in a cell, tissue or organ to produce the problem. Pathophysiology content that does not currently have implications for clinical management should *not* be included in this section. Instead it should be included in the research and future direction module (below). The pathophysiology module may address the following questions.

What causes the disease?

How does the pathologic process manifest as symptoms or signs?

How does the pathophysiologic process evolve with the progression of the problem?

Prevention

The prevention module should cover interventions that subsequently decrease the risk or severity of the condition. This module may address the following questions.

Which interventions prevent the disease?

How long does the preventative effect of the interaction last?
Which interventions, if not performed, are associated with a higher chance or severity of disease?

Classification

The classification module should cover the way the condition is categorized. This module may address the following questions.

What are the various types of the anomaly?
Why is classification system important?
How is the condition categorized in the literature in order to compare outcomes?

Presentation

The presentation module should describe the manifestations of a problem in a patient or population. This module should describe the typical and atypical symptoms, signs, and examination findings that characterize a problem. This module should also discuss the differential diagnosis related to the presentation and include the criteria necessary to make the diagnosis. This module may address the following questions.

What is the typical presentation of this condition?
What are the typical mechanisms of injury associated with this condition?
What are the history and physical examination findings associated with this problem?
What are the atypical presentations of this problem?
What different diseases, conditions, or exposures might cause this problem?
How frequently does each disease in the differential cause this problem?
What criteria are needed to make the diagnosis?
What findings are pathognomonic for the condition?

Assessment

The assessment module should discuss which interrogations are helpful in assessing the patient and monitoring their response to therapy. This may include bedside, laboratory and radiographic evaluations. This module may address the following questions.

What tests should be performed during the evaluation of this patient?
What radiographic studies should be performed during the evaluation of this patient?
What are the positive and negative predictive values of the studies?
What monitoring devices are appropriate for patients with this condition and how do they work?
What variables should be monitored to evaluate the effectiveness of therapy?

Anatomy

The anatomy module should cover the pertinent normal and pathologic anatomy associated with a condition. This module may address the following questions.

What is the anatomic distribution of a disorder?
What are the typical and atypical anatomic findings during a procedure?
What unusual anatomic variants should concern a surgeon when performing the procedure?

Histology

The histology module should cover the pertinent histologic pathology associated with a condition. This module may address the following questions.

What are the histologic changes associated with the condition?
What are the different histologic types and grades associated with the tumor?

Staging

The staging module should cover how the disease is staged. This module may address the following questions.

What molecular, chemical, histologic or anatomic criteria determine a patient's stage?
What histologic findings determine a tumor's grade?
What investigations are required to properly determine a patient's stage?
How does a patient's stage affect their treatment?
How does a patient's stage affect their prognosis?
When should a patient's staging be re-evaluated?

Prenatal concerns

The prenatal concerns module should address the process of prenatal evaluation and management. This module may address the following questions.

What concepts are important to discuss with the parents of a fetus with the condition?

How should the patient's perinatal course be managed?

What are the implications of the condition for the pregnancy?

What prenatal interventions are appropriate for a fetus with this condition?

Indications for medical treatment

The indications for medical treatment module should cover the findings that warrant instituting medical treatment? This module should also cover the contraindications for a treatment. This module may address the following questions

What are the reasons for performing this intervention?

Is the treatment emergent, urgent or elective?

What criteria must be met before this intervention should be performed?

What are the reasons for not performing this treatment?

What are the relative and absolute contraindications to the treatment?

Medical treatment

The medical treatment module should cover the nonsurgical interventions appropriate for a patient with this condition. This module may address the following questions

What alternative and/or adjuvant medical therapy is available for patients with this problem?

What are the beneficial effects of this medical intervention?

Why is this medical intervention preferred over surgical interventions?

What are the indications and contraindications for this medical intervention?

What medical alternatives should be discussed before obtaining surgical consent?

Medical decision making

The medical decision making module should cover the thought process involved in response to different patient variables. This module may address the following questions

How should medical therapy be altered in response to a change in the patient's condition?

At what point has medical management failed and surgery be considered?

Surgical decision making

The surgical decision making module should cover the thought process involved in determining the appropriate surgical response to different diagnostic and operative findings. This module may address the following questions.

What are the goals of the procedure?

Should the procedure be done using a minimally invasive approach?

Is the operation therapeutic, palliative or investigative?

Indications for surgery

The indications for surgery module should cover the clinical findings that warrant performing surgery on a patient with this problem. This module should also cover contraindications for a procedure. This module may address the following questions

What are the reasons for performing this intervention?

Is the procedure emergent, urgent or elective?

What criteria must be met before this procedure should be performed?

What are the reasons for not performing this procedure?

What are the relative and absolute contraindications to the procedure?

Preoperative preparation

The preoperative preparation module should cover what is necessary or recommended to make a patient ready for the procedure. This module may address the following questions.

What preparation should the patient undergo prior to the procedure?

What resuscitation is required prior to the procedure?

What evaluations are necessary prior to the procedure?

What are the anesthetic concerns surrounding the procedure?

What are the repercussions of not preparing the patient properly?

Steps of the procedure

The steps of the procedure module should detail how the operation is performed. This module may address the following questions.

How is the procedure performed?

What operative maneuvers should be avoided?

What technical skills are required for successfully performing the procedure?

Intraoperative decision making

The intraoperative decision making module should cover the thought process involved in responding to different operative findings. This module may address the following questions.

What are the common and uncommon variations in technique?

Which technique is most appropriate given the operative findings?

Postoperative care

The postoperative care module should cover the care required to recover from the procedure. This module may address the following questions.

What is the expected postoperative course following the procedure?

When is it appropriate to remove tubes or drains placed during the procedure?

How is pain control optimized?

What studies are necessary after the procedure to monitor recovery?

Complications

The complications module should cover the potential adverse effects and complications associated with the medical or surgical treatment of the condition. This module may address the following questions.

What are the potential complications of this intervention?

How frequently do these complications occur?

What characteristics should alert the surgeon to the presence of a complication?

What investigations are needed to confirm the presence of a complication?

What is the number needed to harm (how many individuals are treated with this intervention before one adverse event is observed)?

How are the complications treated?

Outcomes

The outcomes module should document the effectiveness of an intervention. This module may address the following questions.

How is the effectiveness of this intervention measured?

What are the short and long term outcomes after the intervention?

How well does this intervention achieve its goals for the treatment of this problem?

What is the number needed to treat for this intervention to achieve the desired goal in one person?

What are the costs of this intervention?

How do the outcomes of the alternative treatments compare?

What is the mortality of this condition?

Follow-up

The follow-up module should describe the outpatient and long term follow up necessary after the intervention. This module may address the following questions.

Is follow up required after this intervention?

What is the routine outpatient care following this intervention?

How long and how frequently after the intervention is follow up required?

What long-term issues should be discussed with patients and parents with this condition?

Research and future directions

The research and future directions module should discuss current areas of research and likely future developments related to the topic. This module may address the following questions.

What basic science principles are currently under investigation regarding the pathogenesis of the disease?

What interventions are currently in animal or human studies?

Patient care guidelines

The patient care guidelines module will contain algorithms, guidelines and pathways. Content in this module can be linked to specific applicable areas within the text. This module may contain

Flow charts

Decision trees

Clinical pathways and variances

Approved guidelines from associations and expert panels

Perspectives and commentary

This module is reserved for the reviewed comments of others to offer an alternative perspective on the topic. Authors can suggest invited commentators but need not generate content for this module.

Glossary

The glossary module contains the definitions of unique or unusual terms related to the topic. Users may go straight to the glossary to look up uncertain terms without having to search for it in the text. Content in the glossary may be redundant with content in other modules and can be linked to and from other modules. This module may address the following questions

What is the definition of this term?

What acronyms are used in this topic?

What are synonyms for this problem?

Additional resources

This module lists links to resources such as web sites, patient education materials and links to professional and patient organizations.

Discussion questions and cases

This module contains clinical scenarios intended for presentation in an interactive teaching environment and interesting and illustrative case stories submitted by authors or users.

Sample Topic outlines (topic/module/learning objectives)

Disease-based topic

Necrotizing enterocolitis

Introduction

Epidemiology

Which patients are at risk for NEC?

What are the other risk factors for NEC?

Pathophysiology

What is the pathophysiology of NEC?

What growth factors and cytokines have been shown to be associated with either the prevention or development of NEC?

Prevention

Does the use of human breast milk rather than formula prevent the development of NEC?

Do prophylactic probiotics reduce the rate of NEC?

Does the timing, rate of advancement or method of delivery of feeds affect the development of NEC?

Presentation

What are the presenting signs and symptoms of an infant with NEC?

What differentiates spontaneous intestinal perforation (SIP) from classic necrotizing enterocolitis?

How is NEC or FIP influenced by the administration of indomethacin?

Which full term infants are at risk for NEC?

Staging

What is the staging system for necrotizing enterocolitis (NEC)?

Medical management

What is the optimal medical management of NEC?

What antibiotics are used to treat NEC?

How are patients with NEC followed?

Indications for surgery

What are the absolute indications for surgical intervention in necrotizing enterocolitis?

What are the relative indications for surgical intervention in necrotizing enterocolitis?

Preoperative preparation

How should NEC patients be prepared for surgery?

Anatomy and Histology

What is NEC totalis?

Steps of the procedure

What is the role of primary peritoneal drainage for the treatment of NEC?

Intraoperative decision-making

What is the role of primary anastomosis in NEC?

Complications

What is the likelihood of intestinal stricture formation after an episode of necrotizing NEC?

What is the risk of recurrent NEC?

What is the risk of parenteral nutrition associated liver disease (PNALD) and short bowel syndrome (SBS) in patients surgically treated for NEC?

Outcomes

What is the mortality rate for patients with NEC?

What are the long-term growth and neurodevelopmental issues for neonates with NEC?

Research and future directions

How does intestinal microcirculation impact the development of NEC?

Are there any emerging techniques that can identify patients at risk for NEC?

Perspectives and commentary

Discussion questions and cases

Concept-based topic

Respiratory care

Introduction

Pathophysiology

What are the basics of pulmonary physiology?

What is the process for oxygen delivery and carbon dioxide exchange?

What part does cardiac output play in oxygen delivery?

How do the heart and lungs interact?

How does the oxygen dissociation curve affect tissue oxygen delivery?

What is respiratory distress syndrome?

Assessment

How is respiratory function assessed?

How does pulse oximetry work?

How does transcutaneous CO₂ monitoring work?

How are blood gases interpreted?

Anatomy and histology

What are the unique characteristics of the pediatric airway?

Medical treatment

How is bag mask ventilation initiated?

How is intubation performed?

What are the noninvasive modes of ventilation?

What are the indications for mechanical ventilation?

What are the conventional modes of mechanical ventilation?

What are the advantages and disadvantages of pressure vs. volume control?

What are the advanced modes of mechanical ventilation?

How does mechanical ventilation in neonates differ from older children?

What is the role of permissive hypercapnea?

Medical decision-making

What initial settings should I choose?

What adjustments should be made?

Trouble shooting?

Complications

What is ventilator associated lung injury?

What is the incidence of ventilator associated pneumonia?

Research and future directions

What is the role of liquid ventilation?

Perspectives and commentary

Discussion questions and cases

Glossary

Additional resources

Topic with subtopics

The spleen

Introduction

Epidemiology

What is the incidence of splenic disorders?

Pathophysiology

How does the spleen function?

Embryology

How does the spleen develop?

Assessment

What are the ways to assess splenic function?

Anatomy and histology

What are the anatomic abnormalities of the spleen?

Splenomegaly

Accessory spleen

Asplenia

Polysplenia

“Wandering” spleen

Subtopics

Functional disorders

Congenital hemolytic anemias

Membrane disorders

Pathophysiology

Presentation

Medical treatment

Indications for surgery

Erythrocyte enzyme disorders

Pathophysiology

Presentation

Medical treatment

Indications for surgery

Hemoglobinopathies

Thalassemia

Pathophysiology

Presentation

Medical treatment

Indications for surgery

Sickle cell anemia

Pathophysiology

Presentation

Medical treatment

Indications for surgery

ITP

Pathophysiology

Presentation

Medical treatment

Indications for surgery

Hypersplenism

Pathophysiology

Presentation

Medical treatment

Indications for surgery

Cystic diseases of the spleen

Pathophysiology

Presentation

Indications for surgery

Preoperative preparation

What vaccinations are required prior to splenectomy?

Steps of the procedure

Open splenectomy

Laparoscopic splenectomy

Intraoperative decision-making

What is the role of partial vs. total splenectomy?

Complications

What is the risk of overwhelming postsplenectomy sepsis?

What is the role of prophylactic antibiotics in preventing OPSS?

Outcomes

Pediatric Surgery NaT levels of evidence

(Adapted from the Oxford Centre for Evidence-based Medicine <http://www.cebm.net/ocebml-levels-of-evidence/>)

	Type of Study			
	<i>Therapeutic Study</i>	<i>Prognostic Study</i>	<i>Diagnostic Study</i>	<i>Economic / Decision Analysis</i>
Level 1	High quality randomized trial (RCT) Systematic Review of Level 1 RCTs	High quality prospective study Systematic review of Level 1 studies	Testing of previously developed diagnostic criteria on consecutive patients Systematic review of Level 1 studies	Sensible costs and alternatives; values obtained from many studies; with multiway sensitivity analyses Systematic review of Level 1 studies
Level 2	Lesser quality RCT Prospective comparative study Systematic review of Level 2 studies or Level 1 studies with inconsistent results	Retrospective study Untreated controls from an RCT Lesser quality prospective study Systematic review of Level 2 studies	Development of diagnostic criteria on consecutive patients Systematic review of Level 2 studies	Sensible costs and alternatives; values obtained from limited studies; with multiway sensitivity analyses Systematic review of Level 2 studies
Level 3	Case control study Retrospective comparative study Systematic review of Level 3 studies	Case control study	Study of nonconsecutive patients Systematic review of Level 3 studies	Analyses based on limited alternatives and costs; and poor estimates Systematic review of Level 3 studies
Level 4	Case Series	Case series	Case-control study Poor reference standard	Analyses with no sensitivity analyses
Level 5	Expert opinion	Expert opinion	Expert opinion	Expert opinion

Guidelines and recommendations should be similarly graded.

Pediatric Surgery NaT guideline grading

(Adapted from the Agency for Healthcare Research and Quality

<http://www.uspreventiveservicestaskforce.org/Page/Name/tools-and-resources-for-better-preventive-care>)

Level A: Good scientific evidence suggests that the benefits of the clinical service substantially outweigh the potential risks. Clinicians should discuss the service with eligible patients.
Level B: At least fair scientific evidence suggests that the benefit of the clinical service outweighs the potential risks. Clinicians should discuss the service with eligible patients.
Level C: At least fair scientific evidence suggests that there are benefits provided by the clinical service, but the balance between benefits and risks are too close for making general recommendations. Clinicians need not offer it unless there are individual considerations.
Level D: At least fair scientific evidence suggests that the risk of the clinical service outweighs potential benefits. Clinicians should not routinely offer the service to asymptomatic patients.
Level I: Scientific evidence is lacking, of poor quality, or conflicting, such that the risk versus benefit balance cannot be assessed. Clinicians should help patients understand the uncertainty surrounding the clinical service.

Writing Pediatric Surgery NaT CME questions

1. Introduce the question with a brief relevant clinical scenario.
2. Following the scenario, state the specific question in one or two sentences that refer to the learning objective. Negative questions are not permitted (e.g. Which of the following is not true, Each of the following is true except).
3. Offer only one correct answer and no more than four incorrect alternatives. Note which answer is correct. The answer should be clear from reading the learning objective in the topic module.
4. Media (i.e. radiographs) can be incorporated into questions.