



canuc-paeds resources

canuc-paeds

The Canadian Undergraduate Curriculum in Paediatrics

last updated November 2013

Compiled by the Pediatric Undergraduate Program Directors of Canada

Contents

Introduction.....	4
Physical Examination Resources	5
Paediatric Health Supervision	6
Newborn	7
Neonatal Jaundice	9
Fever	9
Dehydration	10
Respiratory Distress / Cough.....	11
Growth Problems.....	12
Development & Behavioural Problems	13
Inadequately Explained Injury (Child Abuse)	14
Abdominal Pain	14
Vomiting.....	15
Diarrhea	16
Altered Level of Consciousness	17
Seizure / Paroxysmal Event.....	17
Headache	18
Murmur	19
Rash	20

Bruising / Bleeding.....	20
Pallor / Anemia.....	21
Lymphadenopathy.....	21
Limp / Extremity Pain	22
Urinary Complaints (hematuria, dysuria, polyuria, frequency)	23
Edema	24
Sore Ear	25
Sore Throat / Sore Mouth.....	25
Sore / Red Eye	26

Introduction

This resource guide has been developed by the members of the Paediatric Undergraduate Program Directors of Canada (PUPDOC) to provide learners with a variety of resources that are aligned with canuc-paeds, the Canadian Undergraduate Curriculum in Paediatrics. Resources are intended to provide information at the level of the medical student.

Resources are organized by the clinical presentations of the canuc-paeds curriculum, and within each presentation they are subsequently divided into type of resource. Overviews provide general information about the topic, and often include aspects of foundational knowledge – the basic science knowledge that is required to have an understanding of the topic. As such, these are grouped together in the resource tables. Clinical resources are those which can be referenced during the care of a patient, and often include guidelines and other highly clinically relevant information. Virtual patients or cases use these formats to allow the learners to engage in the topic. In addition, a section specific to physical examination resources has been included.

The resources that have been identified have been evaluated for quality based on being: (a) aligned with the curriculum, (b) evidence based, (c) user friendly and (d) accessible. Free resources have been identified wherever possible; journal articles may or may not be free depending on institutional subscription. Due to copyright considerations, articles are noted by full reference and no links are provided for these unless free access is available. Website links, wherever possible, are provided for other resources. Some resources are available in both English and French, and where possible both links have been provided.

It should be noted that this list of resources does not constitute required readings for medical students; rather, it provides a variety of resources that students may find helpful as they direct their studies. On the tables, contributors have included annotations to help learners determine if a particular resource will meet their personal learning need.

Resources will be reviewed on a regular basis for accuracy, currency, and alignment with canuc-paeds.

Physical Examination Resources

Pediatric Physical Exam	Comments
Hand hygiene video. http://www.nejm.org/doi/full/10.1056/NEJMvcm0903599	Video from NEJM that outlines rationale and technique for hand washing. A must see.
Pediatric Physical Exam Videos http://www.comsep.org/educationalresources/multimediateachingtools.cfm	Select “pediatric physical examination” on the page. This is an excellent video with tips on examining all ages of kids. Includes how to immobilize for the physical exam. Graphics are out of date, but the video quality and message is outstanding.
Developmental Milestones http://videos.undergroundmed.net	Seven-minute video on developmental milestones. Search site for “developmental milestone” under “pediatrics.”
Pediatric Neurologic Examination- http://library.med.utah.edu/pedineurologicexam/html/home_exam.htm OR Google “Pediatric Neurologic Exam”	Short video vignettes with written descriptions of the neurodevelopmental exam for newborns, 3 month-olds, 6 month-olds, 12 month-olds, 18 month-olds, and 2-and-a-half year-olds. Good review of clinical exam.
University of British Columbia Learn Pediatrics website: learnpediatrics.com http://learnpediatrics.com/videos/abdominal-exam/	Video of the abdominal exam in a child. Detailed video demonstrating the abdominal physical examination techniques.
Evaluation of the child with joint pain or swelling http://www.arthritisresearchuk.org/health-professionals-and-students/video-resources/pgals/pgals-summary.aspx	Video of pediatric musculoskeletal screening exam: pGALS (gait, arms, legs, spine).
Shaikh N et al. Diagnosing Otitis Media- Ostoscopy and Cerumen Removal. NEJM Videos in Clinical Medicine. 2010; 362: e62.	NEJM video accessible on line through ‘articles and Multimedia’ Good visuals of various middle ear pathologies. Below video image, choose “chapters” - focus on Chapters 1,2,4,6,7.
Simply Parenting (Developmental Videos) http://www.youtube.com/user/simplyparenting/videos?view=0	Videos of development from newborn to 2 years of age; includes development and parenting tips; excellent resource.
Pediatric Physical Exam Video mms://129.106.144.1/archive/ms/pedi/PDPhysical.wmv	Video of child exam; great for early learners.

Paediatric Health Supervision

Overview & Foundational Knowledge	Comments
<p>Effective discipline for children http://www.cps.ca/en/documents/position/discipline-for-children http://www.cps.ca/fr/documents/position/discipline-aupres-enfants</p>	<p>Canadian Paediatric Society Position Statement (2004, 2013) *This is recommended as a MUST READ resource*</p>
<p>Goldenring, JM & Rosen, DS. Getting into adolescent heads: An essential update. <i>Contemporary Pediatrics</i> 2004. http://www2.aap.org/pubserv/PSVpreview/pages/Files/HEADSS.pdf</p>	<p>Article in Contemporary Pediatrics, available through the AAP. Lengthy but excellent article. Provides great examples of questions for the adolescent HEADSS history (included in a table within the article).</p>
<p>Prager, LM. Depression and suicide in children and adolescents. <i>Pediatrics in Review</i> 2009; 30 (6): 199-206.</p>	<p>Overview article on depression and suicide in children and adolescents.</p>
<p>Hunt, CE & Hauck, FR. Sudden infant death syndrome. <i>Canadian Medical Association Journal</i> 2006; 174(13): 1861-1869.</p>	<p>Review article on SIDS.</p>
<p>First Episode Psychosis: An Information Guide http://www.camh.ca/en/hospital/health_information/a_z_mental_health_and_addiction_information/psychosis/first_episode_psychosis_information_guide/Pages/first_episode_psychosis_information_guide.aspx</p>	<p>Information on first episode psychosis from CAMH (Centre for Addiction and Mental Health).</p>
<p>Bagnell A. Anxiety and separation disorders. <i>Pediatrics in Review</i> 2011; 32: 440. http://pedsinreview.aappublications.org/content/32/10/440</p>	<p>Overview of common pediatric anxiety disorders with differential diagnoses.</p>
<p>Kenyon C et al. Revisiting the social history for child health. <i>Pediatrics</i> 2007; 120: e734-8. http://pediatrics.aappublications.org/content/120/3/e734.full.html</p>	<p>Overview of the social history and the IHELP mnemonic.</p>
Clinical Resources	
<p>Rourke Baby Record: Evidence-based infant/child health maintenance guide http://www.rourkebabyrecord.ca/b http://www.rourkebabyrecord.ca/evidence.asp</p>	<p>*This is recommended as a MUST READ resource*</p>
<p>Grieg Health Record http://www.cps.ca/tools-outils/greig-health-record</p>	<p>Grieg Health Record for ages 6 to 17 years; covers mental health, adolescence, social and home context. *This is recommended as a MUST READ resource*</p>
<p>Foster, HE & Jandial, S. pGALS – A screening examination of the musculoskeletal system in school-aged children. <i>Arthritis Research Campaign</i> No. 15, 2008. http://xa.yimg.com/kq/groups/17556548/1528113992/name/Hands%252BOn%252BpGALS%252Bcomplete%252Bpdf%252B17%252B6%252B08.pdf</p>	<p>Brief article outlining an MSK screening examination with excellent visuals/images.</p>
<p>Public Health Agency of Canada: Immunization Schedules http://www.phac-aspc.gc.ca/im/ptimprog-progimpt/table-1-eng.php http://www.phac-aspc.gc.ca/im/ptimprog-progimpt/table-1-fra.php http://www.phac-aspc.gc.ca/im/is-pi-eng.php http://www.phac-aspc.gc.ca/im/is-pi-fra.php</p>	<p>Immunization schedules including catch up schedules and provincial schedules, in English and French.</p>
<p>Healthy active living: Physical activity guidelines for children and adolescents</p>	<p>Canadian Paediatric Society Position Statement (2012)</p>

http://www.cps.ca/en/documents/position/physical-activity-guidelines http://www.cps.ca/fr/documents/position/directives-activite-physique	*This is recommended as a MUST READ resource*
Pediatric Blood Pressure Tables http://www.nhlbi.nih.gov/guidelines/hypertension/child_tbl.htm	Tables of normative values (percentiles) for pediatric blood pressure based on age, gender and height percentile. Mandatory resource for evaluating blood pressure in pediatric patients.
The Well Child Visits http://videos.undergroundmed.net	Seven-minute video on the components of the well-child visit history and physical exam. Search site for “well child visits” under “pediatrics.”
Calculating Calories for Infant Feeding http://videos.undergroundmed.net	Outstanding six-minute video on calculating calories and volumes for infant formulas and breast milk. Search site for “calculating calories” under “pediatrics.” Uses both mL and ounces.

Newborn

Overview & Foundational Knowledge	Comments
Phillipi WJB. Care of the well newborn. <i>Pediatrics in Review</i> 2012; 33: 4-18.	Overview article; very comprehensive article covering many aspects of neonatal evaluation and care (antenatal care, early postpartum transitioning, anticipatory guidance, discharge readiness).
Ramachandrappa A & Jain L. Health Issues of the Late Preterm Infant. <i>Pediatric Clinics of North America</i> 2009; 56(3): 565-577.	Quite detailed but a good, comprehensive overview of late preterm health issues and their management.
Hermansen, C. and Lorah, K. Respiratory Distress in the Newborn. <i>American Family Physician</i> 2007; 76(7). Available at: http://www.aafp.org/afp/2007/1001/p987.pdf	Covers diagnosis and management of common causes of respiratory distress in the newborn (transient tachypnea of the newborn, respiratory distress syndrome, meconium aspiration) with good visuals (X-rays). Gives a good differential of less common causes.
Polin, RA. Management of Neonates with Suspected or Proven early-onset Bacterial Sepsis. <i>Pediatrics</i> 2012; 129(5): 1006-15. Epub 2012 April 30.	A good overview. Discusses infants at risk for early-onset sepsis, including evaluation, treatment, prevention, as well as clinical challenges.
Peredo, D. The floppy infant: Evaluation of Hypotonia. <i>Pediatrics in Review</i> 2009; 30: e66.	Hypotonia overview. Good visuals, nice tables.
Uhing MR. Management of birth injuries. <i>Pediatric Clinics of North America</i> 2004; 51(4): 1169-89 xii.	Overview of birth trauma, hypothermia in the newborn and the depressed newborn.
McGowan JE. Neonatal Hypoglycemia. <i>Pediatrics in Review</i> 1999; 20: e6-14.	Hypoglycemia overview. Includes foundational knowledge including glucose homeostasis. Covers transient and prolonged hypoglycemia. More detailed than required.
University of Texas: Medical Genetics and Dysmorphology Website http://www.utmb.edu/pedi_ed/CORE/MedicalGenetics/page_o6.htm	Covers a range of topics related to medical genetics and dysmorphology and includes quiz questions.
Bull MJ and the Committee on Genetics; AAP Clinical Report-Health Supervision for	Very detailed but the student can focus on syndrome description and

Children with Down Syndrome.	on table 1- major comorbidities
Fetal Alcohol Syndrome. http://www.cps.ca/en/documents/position/fetal-alcohol-syndrome http://www.cps.ca/fr/documents/position/syndrome-alcoolisme-foetal	Canadian Paediatric Society Position Statement (2002, 2013) For new diagnostic criteria – table 1
Del Pizzo J. Focus on Diagnosis: Congenital Infections (TORCH); <i>Pediatrics in Review</i> 2011; 32(12): 537-542.	A good, simple overview of congenital infections. Covers route of infection, clinical manifestations, diagnosis and treatment, however does not discuss when to consider congenital infections in a neonate.
Oelberg DG. Consultation with the Specialist: Prenatal Growth: The sum of maternal, placental and fetal contributions. <i>Pediatrics in Review</i> 2006; 27: 224-229.	Covers issues relating to prenatal growth including IUGR, SGA and LGA infants.
Hanley WB. Newborn screening in Canada- Are we out of step? <i>Paediatrics and Child Health</i> 2005; 10(4): 203-207.	Addresses issues with newborn screening. Newborn screening in Canada is a provincial mandate. Table 2 provides a general overview but may not be up to date. Please check your provincial program.
Goldberg MJ. Early Detection of Developmental Hip Dysplasia: Synopsis of the AAP Clinical Practice Guideline. <i>Pediatrics in Review</i> 2001; 22(4): 131-134.	Brief guidelines regarding management of abnormal hip examination. No pictures.
Mooney JF & Emans JB. Developmental Dislocation of the Hip: A Clinical Overview. <i>Pediatrics in Review</i> 1995; 16: 299.	Images only. For more up-to-date management, please see other article.
Anhalt H, Neely EK & Hintz RL. Ambiguous genitalia. <i>Pediatrics in Review</i> 1996; 17(6): 213-220.	Foundational knowledge, good tables, fairly detailed.
Docimo SG, Silver RI & Cromie W; The Undescended Testicle: Diagnosis and Management. <i>American Family Physician</i> 2000; 62(9): 2037-2044. http://www.aafp.org/afp/2000/1101/p2037.html	Nice overview. Covers management as well as consequences of untreated undescended testes.
Red Reflex Examination in Neonates, Infants, and Children. <i>Pediatrics</i> 2008; 122 (6): 1401-1404.	Abnormal exam: absent red reflex. Statement from AAP Section on Ophthalmology and other associations.
Routine administration of vitamin K to newborns. http://www.cps.ca/documents/position/administration-vitamin-K-newborns http://www.cps.ca/fr/documents/position/administration-vitamine-K-nouveau-nes	Canadian Paediatric Society Position Statement (1997, 2013)
Clinical Resources	
Screening guidelines for newborns at risk for low blood glucose http://www.cps.ca/en/documents/position/newborns-low-blood-glucose http://www.cps.ca/fr/documents/position/hypoglycemie-nouveau-nes	Canadian Paediatric Society Position Statement (2004, 2013)
Chudley AE et al. Fetal alcohol spectrum disorder: Canadian guidelines for diagnosis. <i>CMAJ</i> 2005; 172 (5 suppl) http://www.cmaj.ca/content/172/5_suppl/S1.full.pdf+html	Canadian guidelines for diagnosis of FASD. Very comprehensive. Good tables for diagnostic criteria; good pictures. More detail than required.
Abnormal Red Reflex (Chapter 19) http://www.mhprofessional.com/downloads/products/0071633804/luederch19.pdf	Good images. Original textbook source unknown.

Neonatal Jaundice

Overview & Foundational Knowledge	Comments
Bryon J. Hyperbilirubinemia in the Newborn. <i>Pediatrics in Review</i> 2011; 32(8): 341-349.	Some foundational knowledge on bilirubin metabolism. Discusses physiologic versus pathologic hyperbilirubinemia. More focus on unconjugated hyperbilirubinemia (e.g. breast milk and breastfeeding jaundice).
Brumbaugh D & Mack C. Conjugated hyperbilirubinemia in children. <i>Pediatrics in Review</i> 2012; 33(7): 291-302.	Foundational knowledge. Addresses cholestasis in newborns and older children. Addresses the importance of early diagnosis in newborns. Good visuals.
Clinical Resources	
Guidelines for the detection, management and prevention of hyperbilirubinemia in term and late preterm newborn infants http://www.cps.ca/documents/position/hyperbilirubinemia-newborn http://www.cps.ca/fr/documents/position/hyperbilirubinemie-nouveau-nes	Canadian Paediatric Society Position Statement (2007, 2011)

Fever

Overview & Foundational Knowledge	Comments
Avner, JR. Acute fever. <i>Pediatrics in Review</i> 2009; 30(1): 5-13.	Overview on pathophysiology and management of acute fever.
Mann, K & Jackson, MA. Meningitis. <i>Pediatrics in Review</i> 2008; 29(12): 417-430.	Overview on bacterial, viral, TB and fungal meningitis, management, complications and long term sequelae.
Ishimine, P. Fever without source in children 1 to 36 months of age. <i>Pediatric Clinics of North America</i> 2006; 53: 167-194.	A lengthy but quite complete overview. Includes foundational knowledge.
Fever without a focus in less than 3 months. Pedscaes podcast.	Interview with a Pediatric ID specialist from University of Alberta. Good summary. Free download on iTunes.
Son MB & Newberger J. Kawasaki Disease. <i>Pediatrics in Review</i> 2013; 34(4): 151-162.	Overview article on Kawasaki disease, manifestations, differential diagnosis, treatment, cardiac complications- good pictures and tables.
Clinical Resources	
Temperature measurement in paediatrics http://www.cps.ca/en/documents/position/temperature-measurement http://www.cps.ca/fr/documents/position/mesure-de-la-temperature	Canadian Paediatric Society Position Statement (2000, 2013)

Urinary tract infection: Clinical practice guideline for the diagnosis and management of the initial UTI in febrile infants and children 2 to 24 months. *Pediatrics*, 2011; 128(3): 595-610.

Clinical practice guideline from the Subcommittee on UTI, steering committee on quality improvement and management.

Virtual Patients or Cases

Prolonged fever.
www.pedscases.com

Interactive virtual case 11 month old with fever and rash. Access through PedsCases University of Alberta at www.pedscases.com. On home page go to “start your studies” box, and select “browse 45 cases” then select prolonged fever (tagged under “rash”).

Dehydration

Overview & Foundational Knowledge

Ruth JL & Wassner SJ. Body composition: Salt and water. *Pediatrics in Review* 2006; 27(5), 181-187.

Comments

Review of the different body fluid compartments, the percentage of body fluid with different ages and the equilibrium between extracellular fluid and intracellular fluid. Listing of the daily requirements for sodium and a discussion of the relationship between serum sodium concentration and total body sodium content.

Clinical Resources

Shafiee MAS, Bohn D, Hoorn EJ & Halperin ML. How to select optimal maintenance intravenous fluid therapy. *Q J Med* 2003; 96, 601–610.
<http://qjmed.oxfordjournals.org/content/96/8/601.full.pdf+html>

Adult orientated but a good commentary about the risks of hyponatraemia and advice about the indications for fluid management.

Colletti JE et al. The management of children with gastroenteritis and dehydration in the emergency department. *The Journal of Emergency Medicine* 2010; 38(5) 686-698.

Evidence on the assessment of dehydration, methods of rehydration, and the utility of antiemetics in the child presenting with acute gastroenteritis

Moritz ML & Ayus JC. Intravenous fluid management for the acutely ill child. *Current Opinion in Pediatrics* 2011; 23, 186-193.

Risk of acute hyponatremia in hospitalized children and youth receiving maintenance intravenous fluids.
<http://www.cps.ca/documents/position/acute-hyponatremia-in-hospitalized-children-and-youth>
<http://www.cps.ca/fr/documents/position/hyponatremie-aigue-chez-les-enfants-et-les-adolescents-hospitalises>

Canadian Paediatric Society Practice Point (2013)

Respiratory Distress / Cough

Overview & Foundational Knowledge	Comments
Cohen L. Stridor and upper airway obstruction in children. <i>Pediatrics in Review</i> 2000; 21(4): 4-5.	Overview of upper airway of obstruction.
Snyder J & Fisher D. Pertussis in childhood. <i>Pediatrics in Review</i> 2012; 33 (9): 412-421.	Overview of pertussis.
Montgomery GS & Howenstine M. Cystic Fibrosis. <i>Pediatrics in Review</i> 2009; 30(8): 302-310.	Overview of Cystic Fibrosis.
Madriago E & Silberbach M. Heart failure in infants and children. <i>Pediatrics in Review</i> 2010; 31(1): 4-12.	Overview of congestive heart failure in children.
Clinical Resources	
Managing the paediatric patient with an acute asthma exacerbation http://www.cps.ca/en/documents/position/management-acute-asthma-exacerbation http://www.cps.ca/fr/documents/position/prise-en-charge-exacerbation-aigue-asthme	Canadian Paediatric Society Position Statement (2012) Outlines management of acute asthma exacerbation. *This is recommended as a MUST READ resource*
Kovesi T, Schuh S, Spier S, Bérubé D, Carr S, Watson W & Mclvor RA. Achieving control of asthma in preschoolers. <i>CMAJ</i> 2010; 182 (4): E172-184. http://www.cmaj.ca/content/182/4/E172.full.pdf+html?sid=c839a363-dd22-48b8=9c2-4c65e50dd030	Outlines chronic management of asthma. *This is recommended as a MUST READ resource*
Pneumonia in healthy Canadian children and youth: Practice points for management http://www.cps.ca/en/documents/position/pneumonia-management-children-youth http://www.cps.ca/fr/documents/position/pneumonie-prise-en-charge-enfants-adolescents	Canadian Paediatric Society Practice Point (2011) Outlines etiology, clinical presentation, investigation and management of community acquired pneumonia. *This is recommended as a MUST READ resource*
Zorc JJ & Breese Hall C. Bronchiolitis: Recent evidence on diagnosis and management. <i>Pediatrics</i> 2010; 125(2): 342-349. http://pediatrics.aappublications.org/content/125/2/342.full.pdf+html?sid=d8064ale-50e0-42f9-9a4d-2cc8ldab592d	Review of bronchiolitis, published by American Academy of Pediatrics. May also serve as a resource for an overview of the topic and foundational knowledge.
Emergency treatment of anaphylaxis in infants and children. http://www.cps.ca/en/documents/position/emergency-treatment-anaphylaxis http://www.cps.ca/fr/documents/position/traitement-urgent-anaphylaxie	Canadian Paediatric Society Position Statement (2011) Outlines clinical presentation and management of anaphylaxis. *This is recommended as a MUST READ resource*
Virtual Patients or Cases	
Child with respiratory distress. http://www.youtube.com/watch?v=sJLHiTaXrtc	Video with good visual representation of severe respiratory distress.
Seal bark baby with respiratory distress. http://www.youtube.com/watch?v=KnxwA1XE3HU	Video with excellent audio of croup cough. Visual of lesser quality but demonstrates respiratory distress.
Clinical examples of pertussis.	Video demonstrates pertussis. Audio is good, video of lesser quality.

<http://www.youtube.com/watch?v=dZ5jf-5MobE>

Children's Hospital Cleveland Clinic: Pediatric Radiology Image Gallery
<https://www.cchs.net/pediatricradiology/imagegallery/default.asp>

Image gallery of pediatric radiology; can be navigated by body system or by topic. Images labeled by presentation. On reviewing image, you can select to have findings highlighted as well as diagnosis provided.

Growth Problems

Overview & Foundational Knowledge	Comments
Nwosu BU & Lee MM. Evaluation of short and tall stature in children. <i>American Family Physician</i> 2008; 78(5): 597-604.	Evaluation and investigation of abnormal linear growth with calculations of mid-parental height and body proportions.
Jaffe AC. Failure to thrive: Current clinical concepts. <i>Pediatrics in Review</i> 2011; 32: 100-108.	Excellent review on failure to thrive – a common and important pediatric problem.
Goldstein MA, Dechant EJ & Beresin EV. Eating disorders. <i>Pediatrics in Review</i> 2011; 32(12): 508- 520.	A review article about important history and physical findings in eating disorders as well as the complications and management of anorexia bulimia.
Bradford NF. Overweight and obesity in children and adolescents. <i>Primary Care. Clinics in Office Practice</i> 2009; 36: 319-339.	Definitions, etiology and management of obesity but uses older Centre for Disease Control (CDC) charts.
Clinical Resources	
A Health's Professional's Guide to using the new WHO growth charts (rather than the old CDC growth charts). http://www.dietitians.ca/Downloadable-Content/Public/DC_HealthProGrowthGuideE.aspx	Dieticians of Canada website. This article is a great guide for how to properly assess growth measurements in pediatrics. It includes definitions for classifying normal and abnormal growth.
http://cpeg.stevenmansour.com/content/who-growth-curves	Canadian Pediatric Endocrine Group (CPEG) has critiqued the WHO growth curves (see this link) and created curves using the WHO data which include the weight curves from 2 to 19 years of age.
Virtual Patients or Cases	
Allen DB & Cuttler L. Short stature in childhood – Challenges and choices. <i>NEJM</i> 2013; 368: 1220-1228.	This article works through a case and highlights the distinguishing features of familial short stature and constitutional delay- the two most common causes of short stature in children.

Development & Behavioural Problems

Overview & Foundational Knowledge	Comments
Bhargava S. Diagnosis and management of common sleep problems in children <i>Pediatrics in Review</i> 2011; 32: 91-98.	Overview of diagnosis and management. Good practical points; includes obstructive sleep apnea.
McQuiston S & Kloczko M. Speech and language development: Monitoring process and problems. <i>Pediatrics in Review</i> 2011; 32: 230.	Overview, links to foundational knowledge. General review on speech and language development and problems. Good table regarding normal language development. Mnemonic to remember milestones.
Gerber et al. Developmental milestones: Motor development. <i>Pediatrics in Review</i> 2010; 31: 267-277.	Review of motor development with good pictures; includes red flags for motor delay. Good tables of milestone.
Shea S. Intellectual Disability (Mental retardation). <i>Pediatrics in Review</i> 2012; 33: 110.	General article on intellectual disability. Good tables.
Hann GL, Fischer DJ & Fluent TE. Separation anxiety disorder and school refusal in children and adolescents. <i>Pediatrics in Review</i> 2006, 27: 56.	Good review on school refusal in separation anxiety in all ages.
Clinical Resources	
Effective discipline for children http://www.cps.ca/en/documents/position/discipline-for-children http://www.cps.ca/fr/documents/position/discipline-aupres-enfants	Canadian Paediatric Society Position Statement (2004, 2013) *This is recommended as a MUST READ resource*
Melatonin for the management of sleep disorders in children and adolescents. http://www.cps.ca/documents/position/melatonin-sleep-disorders-children-adolescents http://www.cps.ca/fr/documents/position/melatonine-pour-traiter-troubles-du-sommeil-enfants-adolescents	Canadian Paediatric Society Statement (2012), Community Paediatrics Committee. Overview of sleep problems and recommendations for behavioural management and use of melatonin.
Autism Central website www.autismcentral.ca	Canadian guidelines – screening assessment and diagnosis of ASDs, caregiver and professional resource. Includes summary information.
ADHD Clinical practice guidelines for the Diagnosis, evaluation and treatment of ADHD in children and adolescents. <i>Pediatrics</i> 2011; 128: 1007-1022. http://www.caddra.ca	Latest American guidelines and up to date evidence based information. Canadian ADHD practice guidelines 2011 Very comprehensive, use as a resource. The medication charts (Canadian) and appendix questionnaires useful, practical guidelines.
Virtual Patients or Cases	
http://www.autismspeaks.org/what-autism/video-glossary	Video glossary with video clips of children with Autism spectrum disorders compared to normally developing children. Clips are short and excellent. Site also reviews the diagnostic criteria for ASD and is a resource for public and professionals.
Speech delay virtual case www.pedsccases.com	Interactive virtual case of a 2 year old with language delay. Access through pedscases University of Alberta – www.pedsccases.com On home page go to “start your studies” box, and select “browse 45

cases” then select speech delay (tagged under “developmental and behavioural issues”).

Inadequately Explained Injury (Child Abuse)

Overview & Foundational Knowledge	Comments
Maguire S. Which injuries may indicate child abuse? <i>Arch Dis Child Educ Pract Ed</i> 2010 95: 170-177. http://www.ep.bmj.com/content/95/6/170.full	Overview article in BMJ.
The medical assessment of bruising in suspected child maltreatment cases: A clinical perspective. http://www.cps.ca/en/documents/position/medical-assessment-of-bruising http://www.cps.ca/fr/documents/position/evaluation-medecale-des-ecchymoses	Canadian Pediatric Society statement (2013)
Virtual Patients or Cases	
Altered Level of Consciousness www.peds-cases.com	Patient case on altered level of consciousness. Access through peds-cases University of Alberta – www.peds-cases.com On home page go to “start your studies” box, and select “browse 45 cases” then select decreased level of consciousness (tagged under “altered level of consciousness”).

Abdominal Pain

Overview & Foundational Knowledge	Comments
Ross A & LeLeiko NS. Acute Abdominal Pain. <i>Pediatrics in Review</i> 2010; 31: 135-144. http://pedsinreview.aappublications.org/content/31/4/135	Overview on acute abdominal pain. Focus on history, physical and differential diagnosis.
Alexander K.C. Leung AKC & Sigalet D. Acute Abdominal Pain in Children. <i>Am Fam Physician</i> 2003; 67(11): 2321-2327. http://www.aafp.org/afp/2003/0601/p2321.html	Review article on acute abdominal pain. Focus on the surgical prospective with age specific differential diagnoses.

<p>First Principles of Gastroenterology. The basis of disease and an approach to management. Fifth edition. Chapter 14. Manifestations of Gastrointestinal Disease in the child. Page 681-85. http://www.cag-acg.org/uploads/firstprinciples/english.html http://www.cag-acg.org/uploads/firstprinciples/z_pdf/EN_GAST_14B.pdf</p>	<p>Textbook chapter that includes specific section on chronic abdominal pain in children. Brief overview on chronic abdominal pain.</p>
<p>Collins BS & Thomas DW. Chronic Abdominal Pain. <i>Pediatrics in Review</i> 2007; 28: 323-331. http://pedsinreview.aappublications.org/content/28/9/323</p>	<p>Review article on chronic abdominal pain focusing on functional causes of abdominal pain.</p>
<p>Zeiter DK & Hyams JS. Recurrent abdominal pain in children. <i>Pediatric Clinics of North America</i> 2002; 49 (1): 53-71. http://www.pediatric.theclinics.com/article/S0031-3955(03)00108-1/abstract</p>	<p>Case based overview article discussing differential diagnosis of chronic functional abdominal pain.</p>

Clinical Resources

<p>Managing functional constipation in children. http://www.cps.ca/documents/position/functional-constipation http://www.cps.ca/fr/documents/position/constipation-fonctionnelle</p>	<p>Canadian Paediatric Society Position Statement (2011) on constipation.</p>
<p>Acute and Chronic Abdominal Pain. University of Alberta Pedscases www.pedscases.com https://itunes.apple.com/ca/podcast/pedscases.com-pediatrics-for/id330446233</p>	<p>Audio podcast of an approach to acute abdominal pain (13:28 minutes). Audio podcast of an approach to chronic abdominal pain (13:42 minutes).</p>

Virtual Patients or Cases

<p>Abdominal Pain. University of Alberta pedscases www.pedscases.com http://www.pedscases.com/case/quiz/292</p>	<p>Case based quiz on abdominal pain in a child.</p>
---	--

Vomiting

Overview & Foundational Knowledge	Comments
<p>Merck Manual http://www.merckmanuals.com/professional/pediatrics/symptoms_in_infants_and_children/nausea_and_vomiting_in_infants_and_children.html?qt=vomiting%20and%20childr en&alt=sh#top</p>	<p>Brief overview on nausea and vomiting in infants and children, with audio podcast.</p>
<p>Chandran L & Chitkara M. Vomiting in Children: Reassurance, Red Flag, or Referral? <i>Pediatrics in Review</i> 2008; 29: 183. http://pedsinreview.aappublications.org/content/29/6/183</p>	<p>Review on common causes, the physiology and evaluation of vomiting. Comprehensive age specific differential diagnoses in the young child.</p>
<p>Parashette KR & Croffie J. Vomiting. <i>Pediatrics in Review</i> 2013; 34: 307. http://pedsinreview.aappublications.org/content/34/7/307</p>	<p>Review article on vomiting. Comprehensive review of vomiting; age specific including the older child. Discussion of organic and non-organic causes of vomiting.</p>

Virtual Patients or Cases

Vomiting.

University of Alberta Pedscases www.pedscases.com

<http://www.pedscases.com/case/quiz/198>

Case based quiz on vomiting in an infant.

Diarrhea

Overview & Foundational Knowledge

Comments

First Principles of Gastroenterology. The basis of disease and an approach to management. Fifth edition. Chapter 14. Manifestations of Gastrointestinal Disease in the child. Page 710-719.

<http://www.cag-acg.org/uploads/firstprinciples/english.html>

http://www.cag-acg.org/uploads/firstprinciples/z_pdf/EN_GAST_14B.pdf

Textbook chapter. Review on acute diarrhea and dehydration.

Penelope H & Dennehy MD. Acute Diarrheal Disease in Children: Epidemiology, Prevention, and Treatment. *Infectious Disease Clinics of North America* 2005; 19: 585–602.

Overview article on gastroenteritis.

Granado-Villar D, Cunill-De Sautu B & Granados A. Acute Gastroenteritis *Pediatrics in Review* 2012; 33: 487.

<http://pedsinreview.aappublications.org/content/33/11/487>

Overview article on treatment of gastroenteritis and dehydration.

Zella GC & Isreal EJ. Chronic Diarrhea in Children. *Pediatrics in Review* 2012; 33: 207-218.

<http://pedsinreview.aappublications.org/content/33/5/207>

Overview on chronic diarrhea. Comprehensive differential diagnosis.

Corrigan Jr JJ & Boineau FG. Hemolytic-Uremic Syndrome. *Pediatrics in Review* 2001; 22: 365-369.

<http://pedsinreview.aappublications.org/content/22/11/365>

Brief review on hemolytic uremic syndrome. Not essential but good review.

<http://pedsinreview.aappublications.org/content/suppl/2005/01/27/22.11.365.DC1.html>

Clinical Resources

Dehydration and Diarrhea

Caringforkids.cps

http://www.caringforkids.cps.ca/handouts/dehydration_and_diarrhea

http://www.soinsdenosenenfants.cps.ca/handouts/dehydration_and_diarrhea

Parental handout on gastroenteritis, available in English and French.

Oral rehydration therapy and early re-feeding in the management of childhood gastroenteritis

<http://www.cps.ca/documents/position/oral-rehydration-therapy>

<http://www.cps.ca/fr/documents/position/rehydratation-par-voie-orale>

Canadian Paediatric Society Position Statement (2006). Clinical resource on treatment of dehydration.

Dehydration.
 University of Alberta Pedscases www.pedscases.com
<https://itunes.apple.com/ca/podcast/pedscases.com-pediatrics-for/id330446233>

Audio podcast of an approach to assessment and management of dehydration (20min).

Altered Level of Consciousness

Overview & Foundational Knowledge	Comments
Learn Pediatrics: Approach to the Comatose Child http://learnpediatrics.com/body-systems/nervous-syste/approach-to-the-comatose-child/	Nicely structured and practical approach Definitions of various stats of comatose child Questions to ask on history, differential diagnosis of comatose child, physical examination findings and management
Avner JR. Altered States of Consciousness. <i>Pediatrics in Review</i> 2006; 27 (9): 331-338.	Approach to altered level of consciousness Common causes, differential diagnosis, table on herniation syndromes and management.
Virtual Patients or Cases	
Altered Level of Consciousness www.pedscases.com	Patient case on altered level of consciousness. Access through pedscases University of Alberta - www.pedscases.com On home page go to “start your studies” box, and select “browse 45 cases” then select decreased level of consciousness (tagged under “altered level of consciousness”).

Seizure / Paroxysmal Event

Overview & Foundational Knowledge	Comments
Hall KL & Zalman B. Evaluation and Management of Apparent Life-Threatening Events in Children. <i>American Family Physician</i> 2005; 71(12): 2301-2308. http://www.aafp.org/afp/2005/0615/p2301.html	Overview article on ALTEs Definition, etiologies, evaluation and management of ALTE. Discusses outcomes and controversies in ALTE.
Learn Pediatrics: Approach to the Child with a Seizure http://learnpediatrics.com/body-systems/nervous-syste/approach-to-the-child-with-a-seizure/	Practical approach. Includes questions to ask in history, diagnosis, etiology, physical examination findings and investigations. Summary of five seizure syndromes found in children. Includes neurocutaneous disorders causing seizures in infancy.

Learn Pediatrics: Approach to Febrile Seizures http://learnpediatrics.com/body-systems/nervous-system/febrile-seizures/ -	Practical brief overview. Includes diagnostic criteria and table on differentiation between simple and complex febrile seizures. Covers questions to ask on history, physical examination and investigations.
Fischer WJ & Cho CS. Pediatric Syncope: Cases from the Emergency Department. <i>Emergency Medicine Clinics of North America</i> 2010; 28(3): 501-516.	Good table on causes of syncope; good approach to syncope in emergency department. Includes critical elements in history and physical, diagnosis. Good table on EKG findings in syncope. Includes five cases on different causes of syncope.
Wills J. Syncope. <i>Pediatrics in Review</i> 2000; 21(6): 201-204.	Comprehensive overview. Includes definition, etiology, differences between cardiac, non-cardiac and neurocardiac syncope, clinical aspects and management.
Learn Pediatrics: Approach to Syncope: is it cardiac or not http://learnpediatrics.com/body-systems/cardiology/approach-to-syncope-is-it-cardiac-or-not/	Clinical overview: very practical. Includes definition, common conditions, life threatening conditions and other conditions. Also covers differential diagnosis, questions to ask on history, physical examination findings, investigations. There is a good chart for investigations of syncope.

Clinical Resources

Emergency management of the paediatric patient with generalized convulsive status epilepticus http://www.cps.ca/en/documents/position/convulsive-status-epilepticus http://www.cps.ca/fr/documents/position/mal-epileptique-convulsif	Canadian Paediatric Society Position Statement (2011): very practical
---	---

Headache

Overview & Foundational Knowledge	Comments
Blume HK. Pediatric Headache: A Review. <i>Pediatrics in Review</i> 2012; 33: 562-576.	Good and clear review article. Epidemiology of headaches, patterns of headache (nice graph), primary headache syndromes, secondary headaches, substances that can cause headaches, headaches in systemic disease, evaluation of headache, red flags and neuroimaging studies. Management of headaches.
Annequin D, Tourniaire B & Massiou H. Migraine and headache in childhood and adolescence. <i>Pediatric Clinics of North America</i> 2000; 47(3), 617-631.	
Tator CH. Primer: Concussions and their consequences: current diagnosis, management and prevention. <i>CMAJ</i> 2013; 185(11): 975-979.	Good tables on key points, neurological and psychological disorders in concussion, graduated return to activities and prevention of concussion. Practice points on diagnosis and management of concussions.
Purcell L, Kissick J & Rizos J. Five Things to Know About Concussion. <i>CMAJ</i> 2013; 185(11): 981.	Important things to know about concussion.

Clinical Resources

Evaluation and management of children and adolescents with sports related concussion Canadian Pediatric Society Position Statement (2012)
www.cps.ca/documents/position/concussion-evaluation-management
<http://www.cps.ca/fr/documents/position/commotion-evaluation-prise-en-charge>

Murmur

Overview & Foundational Knowledge

Frank JE & Jacobe KM. Evaluation and Management of Heart Murmurs in Children. *American Family Physician* 2011; 84: 793-800.

Medical University of South Carolina: Congenital Heart Disease Animation
<http://www.muschealth.com/video/Default.aspx?videoId=10007&cId=34&type=rel>

Lucille Packard Children's Hospital at Stanford: Overview of Congenital heart Disease
<http://www.lpch.org/DiseaseHealthInfo/HealthLibrary/cardiac/chd.html>

About Kids Health, SickKids Hospital: Resource Centres/Congenital Heart Conditions
<http://aboutkidshealth.ca>

Cincinnati Children's Hospital Medical Center: Cardiac Anomalies / Congenital Heart Defects
<http://www.cincinnatichildrens.org/patients/child/encyclopedia/defects/default/>

Comments

Review article on evaluation and management of murmurs.

Animated video of ASD, VSD, PFO, PDA and CoA.

Includes diagrams and written descriptions of all congenital heart disease; provides an approach to the diagnosis of congenital heart disease.

Describes congenital heart disease, both cyanotic and acyanotic; navigate site by selecting specific CHD. Demonstrates differences between normal and abnormal hearts. Includes nice images and videos.

Clinical Resources

University of Washington: Demonstration of Heart Sounds & Murmurs
<http://depts.washington.edu/physdx/heart/demo.html>

This site includes audio demonstrations of heart sounds and murmurs, as well as includes links to the pathophysiology.

Virtual Patients or Cases

University of Michigan Heart Sound and Murmur Library
<http://www.med.umich.edu/lrc/psb/heartsounds/index.htm>

Audio of murmurs with cardiograms for visual representation.

Children's Hospital Cleveland Clinic: Pediatric Radiology Image Gallery
<https://www.cchs.net/pediatricradiology/imagegallery/default.asp>

Image gallery of pediatric radiology; can be navigated by body system or by topic. Images labeled by presentation. On reviewing image, can select to have findings highlighted as well as diagnosis provided.

Rash

Overview & Foundational Knowledge	Comments
Epps RE. Atopic dermatitis and ichthyosis. <i>Pediatrics in Review</i> 2010; 31(7): 278-286.	Review article of atopic dermatitis, treatment and complications- good visuals. Atopic dermatitis p 278-283.
Krowchuk DP. Managing adolescent acne: A guide for pediatricians. <i>Pediatrics in Review</i> 2005; 26(7): 250-261.	Review of epidemiology, pathogenesis, differential diagnoses, and treatment of acne – good visuals.
O'Connor NR, McLaughlin MR & Ham P. Newborn skin: Part 1 Common rashes. <i>American Family Physician</i> 2008; 77(1): 47-52.	Good general article on common Newborn rashes including seborrhea dermatitis. Good visuals.
Mckinnon HD Jr & Howard T. Evaluating the febrile patient with a rash. <i>American Family Physician</i> 2000; 62(4): 804-816.	General article on viral exanthems with good tables and pictures.
Langley EW, Gigante J, Anaphylaxis, Urticaria and Angioedema. <i>Pediatrics in Review</i> 2013; 34: 247.	See section on urticaria page 251-253
Shin HT. Diaper dermatitis that does not quit. <i>Dermatologic Therapy</i> 2005; 18: 12-135.	Good general article with visuals.
Clinical Resources	
Scabies management http://www.cps.ca/en/documents/position/scabies http://www.cps.ca/fr/documents/position/la-gale	Canadian Paediatric Society Position Statement (2001)
Virtual Patients or Cases	
DermNet NZ www.Dermnetnz.org	Excellent site with pictures of various rashes and limited basic clinical information.

Bruising / Bleeding

Overview & Foundational Knowledge	Comments
Consolini DM. Thrombocytopenia in infants and children. <i>Pediatrics in Review</i> 2011; 32: 135-49.	Review of platelet disorders, causes of thrombocytopenia in children with a focus on ITP- good tables and diagrams for learning.
Zimmerman B & Valentino LA. Hemophilia: In review. <i>Pediatrics in Review</i> 2013; 34: 289.	Good review and foundational knowledge. Reviews clotting cascades.
Tizard EJ & Hamilton-Ayres MJJ. Henoch-Schönlein purpura. <i>Archives of disease in childhood. Education and practice edition</i> , 2008; 93(1), 1-8.	Good general article Includes foundational knowledge, diagnosis and visuals.
Brayer AF & Humiston SG. Invasive meningococcal disease in childhood. <i>Pediatrics in Review</i> , 2011; 32(4): 152-160.	Review of meningococcal disease. Clinical features, treatment guidelines and complications.

The medical assessment of bruising in suspected child maltreatment cases: A clinical perspective. http://www.cps.ca/documents/position/medical-assessment-of-bruising http://www.cps.ca/fr/documents/position/evaluation-medicale-des-ecchymoses	Canadian Pediatric Society Practice Guideline (2013) Good tables, differential diagnoses.
---	--

Clinical Resources

Meningococcal vaccines in Canada: An update http://www.cps.ca/en/documents/position/meningococcal-vaccine http://www.cps.ca/fr/documents/position/vaccins-contre-le-meningocoque	Canadian Paediatric Society Position Statement (2011)
---	---

Pallor / Anemia

Overview & Foundational Knowledge	Comments
Janus J & Moerschel S. Evaluation of anemia in children. <i>American Family Physician</i> 2010; 15(12): 1462-1471. http://www.aafp.org/afp/2010/0615/p1462.html	Good basic article with flow diagrams capturing diagnosis based on age and MCV.
Hutter JJ. Childhood leukemia. <i>Pediatrics in Review</i> 2010; 31(6): 234-240.	Note: ANNL = AML.
Clinical Resources	
Malempati S et al. Bone Marrow Aspiration and Biopsy <i>NEJM</i> 2009; 361: e28. http://www.nejm.org/doi/full/10.1056/NEJMvcm0804634	Bone marrow aspiration video.
Miles S et al. Lumbar puncture. <i>NEJM</i> 2006; 355: e12.	Lumbar puncture instruction video.

Lymphadenopathy

Overview & Foundational Knowledge	Comments
Sahai S. Lymphadenopathy. <i>Pediatrics in Review</i> 2013; 34: 216-227. http://pedsinreview.aappublications.org/content/34/5/216.full	Nice review article. Includes definition of lymphadenopathy, anatomy and physiology, differential diagnosis of lymph node enlargement (systemic and local), history and physical findings, investigations and management. Article has good pictures of lymph nodes in head & neck area and in other body parts. Brief description of diseases causing lymphadenopathy.

Friedmann AM. Evaluation and Management of Lymphadenopathy in Children. <i>Pediatrics in Review</i> 2008; 29: 53-60.	Nice comprehensive review.
Learn Pediatrics: Approach to Lymphadenopathy http://learnpediatrics.com/body-systems/hematology-oncology/approach-to-lymphadenopathy-2/	Nice brief review
Learn Pediatrics: Approach to Pediatric Leukemias and Lymphomas http://learnpediatrics.com/body-systems/hematology-oncology/approach-to-pediatric-leukemias-and-lymphomas/	Nice tables
Hutter JJ. Childhood Leukemia. <i>Pediatrics in Review</i> 2010; 31: 234-241.	Very scientific and comprehensive.
Stanford: Cervical Adenitis https://docs.google.com/viewer?a=v&q=cache:9su6ZMZ3hNgJ:peds.stanford.edu/Rotations/blue_team/documents/Cervical_Lymphadenitis_Summary_2009_02.pdf+&hl=en&gl=ca&pid=bl&srcid=ADGEE5iFYNjxgrgvKML9B5Q1i8fvXbZzOP7QBEs1v98QOO2Fs1UsXdV6IHVUJNsO67nKg4LApd7WE3ZJbhJkN145kZjyYILLPOCQpZrObhnQZVR41V-QnDvciz-gofeOu14ki-1OGGea&sig=AHIEtbSajoEo2ka_wXsyNHj8EUaNooMqDw	Comprehensive
Gosche JR & Vick L. Acute, subacute, and chronic cervical lymphadenitis in children. <i>Seminars in Pediatric Surgery</i> 2006; 15(2): 99-106. http://www.sempedsurg.org/article/S1055-8586%2806%2900019-9/abstract	
Luzuriaga K & Sullivan JL. Infectious Mononucleosis. <i>N Engl J Med</i> 2010; 362: 1993-2000.	Comprehensive
Peters TR & Edwards KM. Cervical Lymphadenopathy and Adenitis. <i>Pediatrics in Review</i> 2000; 21: 399-405.	Infectious causes of lymphadenopathy, nice tables.

Limp / Extremity Pain

Overview & Foundational Knowledge	Comments
Tse SML & Laxer RM. Approach to Acute Limb Pain in Childhood. <i>Pediatrics in Review</i> 2006; 27: 170-180. http://pedsinreview.aappublications.org/content/27/5/170	Case based discussion of non-inflammatory and inflammatory causes of acute limb pain. Essential read.
Huurman WW & Ginsburg GM. Musculoskeletal Injury in Children. <i>Pediatrics in Review</i> 1997; 18: 429. http://pedsinreview.aappublications.org/content/18/12/429	Review of orthopedic injuries in children.
Junnilla JL & Cartwright VW. Chronic Musculoskeletal Pain in Children: Part I. Initial Evaluation. <i>American Family Physician</i> 2006; 74: 115-22. http://www.aafp.org/afp/2006/0701/p115.html	Overview on the evaluation of musculoskeletal pain in children.
Junnilla JL & Cartwright VW. Chronic Musculoskeletal Pain in Children: Part II. Rheumatic Causes. <i>American Family Physician</i> 2006; 74: 293-300. http://www.aafp.org/afp/2006/0715/p293.html	Overview describing when to refer chronic musculoskeletal pain and inflammatory joint conditions.

John J & Chandran L. Arthritis in Children and Adolescents. <i>Pediatrics in Review</i> 2011; 32: 470. http://pedsinreview.aappublications.org/content/32/11/470 http://pedsinreview.aappublications.org/content/suppl/2012/01/05/32.11.470.DC1.html	Review of inflammatory causes of arthritis in children.
--	---

Clinical Resources

Evaluation of the child with joint pain or swelling http://www.uptodate.com/contents/evaluation-of-the-child-with-joint-pain-or-swelling?detectedLanguage=en&source=search_result&search=joint+pain&selectedTitle=2~150&provider=noProvider	The images and tables from the article are most useful. Table format of the pGALS physical exam with pictures. Useful table of the differential diagnosis of the child with limp.
--	---

Virtual Patients or Cases

Gill P, MacPherson P, LeBlanc C, Ellsworth J PedCases- A Learning Module for Evaluation of a Pediatric Limp for Medical Students. MedEdPORTAL 2010. Available from: https://www.mededportal.org/publication/7910	Audio podcast on the evaluation of the child with a limp. Includes nine cases on the pediatric patient with a limp. Available online through MedEdPORTAL.
University of Alberta Pedscases www.pedscases.com http://www.pedscases.com/case/quiz/292	Case based quiz on joint pain in a child.
University of Alberta Pedscases www.pedscases.com http://www.pedscases.com/limp	Case based quiz on differential diagnosis of the child with a limp across different age groups.

Urinary Complaints (hematuria, dysuria, polyuria, frequency)

Overview & Foundational Knowledge	Comments
-----------------------------------	----------

Williams GJ, Hodson EH, Isaacs D & Craig JC. Diagnosis and management of urinary tract infection in children. <i>Journal of Paediatrics and Child Health</i> 2012; 48: 296-301.	This review summarizes the most relevant recent primary studies, systematic reviews and guidelines
Meyers K. Evaluation of hematuria in children. <i>Urology Clinics of North America</i> 2004; 31: 559-573.	Evaluation from the basics to differential diagnosis and a paragraph on each individual disease.
Saulsbury FT. Henoch-Schonlein purpura. <i>Current Opinion in Rheumatology</i> 2010; 22: 598-602.	A short update on recent advances in the genetic susceptibility, pathogenesis and treatment of Henoch-Schonlein purpura.
Kiddoo DA. Nocturnal enuresis. <i>CMAJ</i> 2012; 184(8): 908-910.	Brief “primer” on nocturnal enuresis.
Hellerstein S & Linebarger J. Voiding Dysfunction in Pediatric Patients. <i>Clinical Pediatrics</i> 2003; 42: 43-9.	Clinical criteria for the various voiding disorders with management

Clinical Resources

Wolfsdorf et al. Diabetic ketoacidosis in children and adolescents with diabetes. <i>Pediatric Diabetes</i> 2009; 10 (Suppl 12): 118-133.	International Society for Pediatric and Adolescent Diabetes (ISPAD) Clinical Practice Consensus Guidelines 2009 Compendium
---	--

Management of primary nocturnal enuresis http://www.cps.ca/en/documents/position/primary-nocturnal-enuresis http://www.cps.ca/fr/documents/position/enuresie-nocturne-primaire	Canadian Paediatric Society Position Statement (2005, 2013)
Urinary Tract Infection: Clinical Practice Guideline for the Diagnosis and Management of the Initial UTI in Febrile Infants and Children 2 to 24 Months. <i>Pediatrics</i> 2011; 128: 595-610. http://pediatrics.aappublications.org/content/128/3/595.full.pdf#page=1&view=FitH	There are many UTI guidelines – this is a recent one for younger children.
Estrada CR Jr, Passerotti CC, Graham DA, et al. Nomograms for predicting annual resolution rate of primary vesicoureteral reflux: results from 2462 children. <i>J Urol</i> 2009; 182: 1535.	Useful to estimate probability of spontaneous resolution of childhood vesicoureteric reflux.
Ahn SY & Ingulli E. Acute poststreptococcal glomerulonephritis: An update. <i>Current Opinion in Pediatrics</i> 2008; 20: 157-162.	This review summarizes the recent advances in the pathogenesis, host susceptibility factors, diverse clinical presentations, and treatment of the condition.

Edema

Overview & Foundational Knowledge	Comments
Hisano S et al. Edema in childhood. <i>Kidney Int</i> 1997; 59: S100-104.	An old review but covers the basics well: localised and general edema, causes and management.
Gordillo R & Spitzer A. The nephrotic syndrome. <i>Pediatrics in Review</i> 2009; 30: 94-105.	Review of the mechanism of proteinuria, treatment and outcomes.
Cooke D & Plotnick L. Management of Diabetic Ketoacidosis in Children and Adolescents. <i>Pediatrics in Review</i> 2008; 29: 431-436.	Presentation, treatment and possible complications.
Andreoli S. Acute kidney injury in children. <i>Pediatric Nephrology</i> 2009; 24(2): 253-263.	Causes of childhood acute and kidney failure, treatment and complications.
Vandenplas Y et al. Guidelines for the diagnosis and management of cow's milk protein allergy in infants. <i>Archives of Disease in Childhood</i> 2007; 92: 902-908.	Includes algorithms for formula and breast fed infants.
Clinical Resources	
Lombel et al. Treatment of steroid-sensitive nephrotic syndrome: new guidelines from KDIGO. <i>Pediatric Nephrology</i> 2013; 28: 415-26.	Latest guidelines for the treatment of childhood nephrotic syndrome.

Sore Ear

Overview & Foundational Knowledge	Comments
Gould & Matz. Otitis Media. <i>Pediatrics in Review</i> 2010; 31: 102.	General review on otitis media good for visuals. Caveat: follows American management guidelines; refer to CPS position statement (see clinical resources below) for Canadian management.
Stone K. Otits Externa. <i>Pediatrics in Review</i> 2007; 28: 77.	Brief review on Otitis externa.
Clinical Resources	
Management of Acute Otitis Media http://www.cps.ca/documents/position/acute-otitis-media http://www.cps.ca/fr/documents/position/otite-moyenne-aigue	Canadian Paedatric Society Position Statement (2009) Good review, tables and figures. * Recommended as a MUST READ resource*
Otitis Media with Effusion. American Academy of Family Physicians, American Academy of Otolaryngology-Head and Neck Surgery, and American Academy of Pediatrics Subcommittee on Otitis Media With Effusion. <i>Pediatrics</i> 2004; 113: 1412.	Clinical practice guidelines on the management of otitis media with effusion.

Sore Throat / Sore Mouth

Overview & Foundational Knowledge	Comments
Gereige, R and Cunill- De Sautu, B. Throat Infections. <i>Pediatrics in Review</i> 2011; 32(11): 459-469.	Overview of pharyngitis, peritonsillar abscess, retropharyngeal cellulitis. Very good pictures.
Krol DM & Keels MA. Oral conditions. <i>Pediatrics in Review</i> 2007; 28(1): 15-22.	Covers conditions such as oral candidiasis, viral stomatitis and ulcerative lesions. Good pictures.
Martof, A. Consultation with the Specialist: Dental Care. <i>Pediatrics in Review</i> 2001; 22(1): 13-15	Good, short overview with good pictures. Covers tooth eruption, dental care in infants, dental caries, dental trauma and dental infection.
Clinical Resources	
Antifungal agents for common paediatric infections. http://www.cps.ca/documents/position/antifungal-agents-common-infections http://www.cps.ca/fr/documents/position/antifongiques-traitement-infections-courantes	Canadian Paediatric Society Position Statement (2007, 2013). There is a specific section on oropharyngeal candidiasis.

Sore / Red Eye

Overview & Foundational Knowledge	Comments
Hauser, A. and Fogarasi, S. Periorbital and orbital cellulitis. <i>Pediatrics in Review</i> 2010; 31(6): 242-249.	Very good overview of periorbital and orbital cellulitis. Excellent pictures. There is a correction to the post-article questions (question 14, correct answer is C). Please note: for MRSA, antibiotics choices should be adapted as antibiotic resistance patterns vary by region.
Richards A and Guzman-Cottrill JA. Conjunctivitis. <i>Pediatrics in Review</i> 2010; 31(5): 196-208.	Overview of conjunctivitis. Many good pictures.