



Children ARE just small adults

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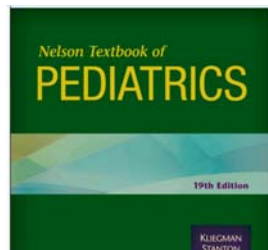
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History of Pediatrics

- *Ex toto non sic pueri ut viri curari debent* ("In general, boys should not be treated in the same way as men." Celsus 50 AD)
- 1800's Dr. Eli Ives gives lectures on "diseases of children" and becomes the first academic appointed Pediatric professor in 1815.
- 1825: the first textbooks in pediatrics are published
- 1854: CHOP established the first US Children's Hospital

History of Pediatrics

- 1933: First Edition (Textbook of Pediatrics by Mitchell)
- 1945: Fourth Edition "Mitchell-Nelson Textbook of Pediatrics"
- 1950: 5th Edition "The Child is not a Little Man"



History of Pediatrics

- Abraham Jacobi (1830-1919): "Father of Pediatrics"
 - Born in Germany
 - MD U of Bonn 1851
 - Jailed for treason
 - Escaped: Karl Marx, Frederick Engels
 - 1857: NY Communist Club founding member
 - 1859: Midwifery and disease of Women and Children.
 - 1860: Pediatric in the US at NY Medical College, opened the first free pediatric clinic



"He rapidly became recognized as an expert in diseases of children and emphasized that they were not merely small adults" *Robert J. Haggerty*

Case Scenario #1

3 day old infant

- Fever, cough
- Not feeding well, irritable
- VS: T 101.5 R
HR 180
RR 65
Pulse Ox: 95% RA

80 year old Nursing Home Pt

- Fever, cough
- Not feeding well, irritable
- VS: T 101.5R
HR 110
RR 20
Pulse Ox 95% RA

Physical Exam

3 day old

80 yo



Stabilization

Pediatric: ABCD

Adult: ABCD

- Airway
- Breathing
- Circulation
- Disability
- IV, O2, Monitor
- Pulse Ox
- HISTORY

- Airway
- Breathing
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- IV, O2, Monitor
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- HISTORY

Labs/Work-up

3do

80 year old

- CBC
- CMP
- Blood culture
- Cath Urine
- Urine Culture
- IV
- (CSF)
- (CXR)

- CBC
- CMP
- Blood culture
- Cath Urine
- Urine Culture
- IV
- (CSF)
- (CXR)
- Lactate

Treatment

3do

80 yo

- IVF
- Antibiotics
- (Antiviral)

- IVF
- Antibiotics

References:
 • Febrile infants: <http://www.ahrq.gov/research/findings/evidence-based-reports/er205-abstract.html>
 • Baraff LJ "Management of Infants and Young Children with Fever without a Source." Pediatric Annals 2008; 37(10):673-631

References:
 • Surviving Sepsis Campaign: International Guidelines for Management of Severe Sepsis and Septic Shock: 2012. Society of Critical Care Med 41(2):580
 • NEJM : Randomized Protocolized Care for early Septic Shock (ProCESS); 2014; 3770:1683

Disposition

3do

80 yo

- Admit

- Admit

Case Scenario #2

5 yo Asthmatic

60 yo COPD

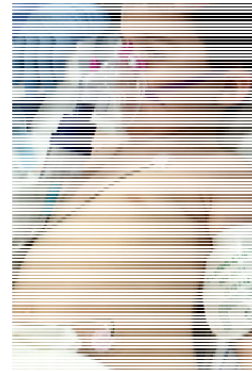
- Cough and SOB
- Recently exposed to cigarette smoke
- VS: afebrile
 HR 120
 RR 34
 Pulse Ox 88% RA
- Leaning forward, 2 letter ABC

- Cough and SOB
- Recently smoking cigarettes
- VS: afebrile
 HR 92
 RR 24
 Pulse Ox 88% RA
- Diaphoretic, leaning forward, one word sentences

Physical Exam

5 yo

60 yo



Stabilization

Pediatric: ABCD

Adult: ABCD

- Airway
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- Airway
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- HISTORY

Labs/Work-up/Treatment

5yo

60 yo

- Bronchodilators
- O2
- Steroids
- (Labs, IV)
- (CXR)

- Bronchodilators
- O2
- Steroids
- Labs, IV
- CXR

Asthma Rx

- Albuterol dosing:
 - Single dose: <15kg 2.5 mg; >15kg 5mg
 - Continuous: 1mg/kg/hr; max 20mg/hr
 - Mod-severe use continuous
- Epinephrine IM
 - 0.01mg/kg/dose (1:1000) q 20 min
- Ipratropium
 - <20kg: 250mcg
 - >20kg: 500mcg
- Steroids
 - Decadron .6mg/kg/dose max 12mg
 - Prednisone 2mg/kg/day bid
 - Methylprednisolone 1-2mg/kg up to q6hr.
- Magnesium
 - 50 mg/kg loading dose (max 2gm)
- Terbutaline
 - 5-10 mcg/kg/min
- Aminophylline
 - Reference: Pediatric Emergency Medicine Reports, "Acute Severe Asthma", April 2013

Asthma Myths

- Nebulizers are better than MDI w/ spacer
 - 4-6puffs = 2.5 mg
 - 8-12 puffs = 5mg
- Levalbuterol causes less tachycardia
- 5 day course of steroids is better than short course steroids
 - Decadron: liquid formulation .5mg/5cc
 - IV Decadron can be used po
 - Dispense tablets to be crushed and mixed.
- Reference: Greenberg RA, et al. A comparison of oral dexamethasone with oral prednisone in pediatric asthma exacerbations treated in the emergency department. Clin Pediatr, 2008, Oct;47(8):817-23

Disposition

5yo	60 yo
<ul style="list-style-type: none"> • No O2 requirement • No significant respiratory distress • Good follow-up • Able to follow through with treatment plan • Home environment 	<ul style="list-style-type: none"> • No increasing O2 requirement • No significant respiratory distress • Good follow-up • Able to follow through with treatment plan • Home environment

References:

- Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma, NIH publication no 08-5846, Oct 2007
- Global Initiative for COPD, 2014 Update.
- Emergency Medicine Practice (ebmedicine.net): The Acute Presentation of COPD, Nov 2008

Case Scenario #3

10 mo old trapped under debris	75 yo trapped under debris
<ul style="list-style-type: none"> • Grossly swollen and deformed left femur • Bruising and tenderness across the lower abdomen and pelvis • No apparent head injury • VS: afebrile HR: 160 RR: 25 BP: 60p Pulse Ox: 90% RA 	<ul style="list-style-type: none"> • Grossly swollen and deformed left femur • Bruising and tenderness across the lower abdomen and pelvis • No apparent head injury • VS: afebrile HR: 95 RR: 18 BP: 80p Pulse Ox: 90% RA

Stabilization

Pediatric: ABCD	Adult: ABCD
<ul style="list-style-type: none"> • Airway • Breathing • Circulation • Disability • IV, O2, Monitor • Pulse Ox • HISTORY 	<ul style="list-style-type: none"> • Airway • Breathing • Circulation • Disability • IV, O2, Monitor • Pulse Ox • HISTORY

Labs/Work-up

10 mo	75 yo
<ul style="list-style-type: none"> • CBC • CMP, Lipase, Amylase • Type and Cross • CXR, C-spine, Pelvis • UA • FAST exam • CT scans 	<ul style="list-style-type: none"> • CBC • CMP, Lipase, Amylase • Type and Cross • CXR, C-spine, Pelvis • UA • FAST exam • CT scans

Treatment

10 mo	75 yo
<ul style="list-style-type: none"> • Fluid resuscitation • Transfusion • Pain relief • Surgery consult • Femur Fx • Pevic injury • (Foley) 	<ul style="list-style-type: none"> • Fluid resuscitation • Transfusion • Pain relief • Surgery consult • Femur Fx • Pevic injury • (Foley)

Summary

<ul style="list-style-type: none"> • Many aspects of emergent pediatric care is similar to adult care, especially stabilization. • Many pediatric references and just-in-time training tools are available to help manage the cognitive load • Practice and drill. • Stop Freakin...because YOU CAN manage acutely ill and injured children.
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Questions?

Thank you.

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