Useful Reading for HDU SPIN and other Hints and Tips

Dr K Goyder. ST6 Paediatrics

Pulmonary Hypertension

Page 17&18 - Multi-organ failure and support, Page 29&21 – Respiratory medicine with ENT

Content:

1) This is an excellent article discussion the Classification Diagnosis and Treatment of PHTN.

2) PULMONARY HYPERTENSION SERVICE (CHILDREN) based as GOSH

Description, Epidemiology, Investigation and Treatment (overview)

<u>Source:</u>

1) The management of pulmonary hypertension in children. Arch Dis Child. 2008 Jul; 93(7): 620–625.

2) NHS England contract (2013/14)

<u>Link(s):</u>

1) <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2532955/</u>

2) <u>https://www.england.nhs.uk/wp-content/uploads/2013/06/e05-pulm-hyperten-</u> <u>child.pdf</u>

Cardiovascular effects of Mechanical Ventilation

page 17&18 Multi-organ failure and support, Page 29&21 – Respiratory medicine with ENT

Content:

This is a really well written article that explains (in a way that can be understood) the many different ways ventilation effects CV system.

Source:

Arch Dis Child 1999;80:475-480 doi:10.1136/adc.80.5.475 Cardiovascular effects of mechanical ventilation

<u>Link(s):</u>

http://adc.bmj.com/content/80/5/475.full

Traumatic Brain Injury

Page 23 - Transport and retrieval of the critically unwell child, Page 24 - trauma and poisoning

Content:

Guidelines for the management of traumatic Brain Injury

Source:

Society of Critical care Medicine and World Federation of Paediatric Intensive care and Critical Care Societies

Link(s):

<u>file:///C:/Users/owner/Downloads/guidelines_pediatric2</u> 2.pdf

Ventilation in Asthmatics

page 17&18 Multi-organ failure and support Page 29&21 – Respiratory medicine with ENT

Content:

A very good paper explaining the complications associated with ventilating asthmatic patients.

Source:

Clinical review: Mechanical ventilation in severe asthma Crit Care. 2005; 9(6): 581–587. Published online 2005 Sep 8. doi: <u>10.1186/cc3733</u>

Link(s):

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1414026/

Oxygen Transport

page 17&18 Multi-organ failure and support

<u>Curriculum</u> "Know the parameters that affect Oxygen Delivery"

Content:

Basic Principles of Oxygen Transport and Calculations – this is a logical progression with equations explaining Oxygen transport, this can then be extrapolated to optimise Oxygen transport in critically unwell children

Source:

Network for the Advancement of Patient Blood Management, and Haemostasis Thrombosis (NATA)

<u>Link(s):</u>

http://www.nataonline.com/np/437/basic-principles-oxygen-transport-andcalculations

Surviving Sepsis

Page 17 - Infection, immunology and allergy

Curriculum:

The patient presents with:	Knowledge and understanding	Skills
Septic shock	know about the Surviving Sepsis Campaign and associated care bundles	

Content:

The Surviving Sepsis Campaign is a joint collaboration of the <u>Society of</u> <u>Critical Care Medicine</u> and the <u>European Society of Intensive Care</u> <u>Medicine</u> committed to reducing mortality from severe sepsis and septic shock worldwide

Link(s): http://www.survivingsepsis.org

Thrombosis

Page 15 - Haematology and Oncology

Curriculum:

The patient presents with:	Knowledge and understanding	Skills
Thrombosis	understand the risk factors for arterial and venous thrombosis particularly when associated with intravascular access	take steps to minimise the risks of developing thrombosis on the HDU
	know the indications, contraindications and complications of thrombolysis	be able to initiate investigations for procoagulability and liaise with haematologists regarding more specific investigations
	know the long term sequelae of thrombosis	be able to diagnose and treat venous and arterial thrombosis

Content:

Guideline on the investigation, management and prevention of venous thrombosis in children. From the British Committee for Standards in Haematology

Link(s):

http://www.bcshguidelines.com/documents/BCSHChildhoodVTEFinalDec2010.pdf

PIM and Picanet

page 17&18 Multi-organ failure and support

<u>Curriculum</u>

• Know the available scoring systems that are available to estimate severity of illness in critically ill children

• Be able to collect appropriate data accurately to record the level of organ dysfunction and predict the risk of mortality

PIM1

http://www.anzics.com.au/Downloads/Paediatric%20index%20of%20mortality%20(PIM).pdf

PIM2

file:///C:/Users/owner/Downloads/PIM2-%20a%20revised%20version%20of%20the%20Paediatric%20Index.pdf

PICAnet

http://www.picanet.org.uk/Audit/Annual-Reporting/PICANet 2015 Annual Lay Report.pdf

http://www.picanet.org.uk/Audit/Annual-Reporting/PICANet_2015_Annual_Report_Summary.pdf

Glycaemic Control

Page 14 - Diabetes with endocrinology

<u>Curriculum</u>

The patient presents with:	Knowledge and understanding	Skills
Hyperglycaemia	Understand the pathophysiology of the stress response in a critically ill child	be able to treat hyperglycaemia safely and effectively with intravenous
	Have knowledge of the literature relating to hyperglycaemia and outcome in critically ill patients	insulin where appropriate

Content:

The CHiP Trial – Whether an insulin infusion should be used for tight control of hyperglycaemia in critically ill children.

<u>Link(s):</u>

file:///C:/Users/owner/Downloads/CHiP%20trial.pdf

ICU acquired Weakness

page 17&18 Multi-organ failure and support

Curriculum:

The patient presents with:	Knowledge and understanding	Skills
Neurology	Know the causes of peripheral weakness after critical illness including critical care polyneuropthy and its associations	Be able to recognise and investigate the cause of peripheral weakness

Link(s):

http://ceaccp.oxfordjournals.org/content/early/2012/01/06/bjaceaccp .mkr057.full

http://lifeinthefastlane.com/ccc/icu-acquired-weakness

Other useful ways of fulfilling the curriculum

Is there a Guideline for it...

- Post op stridor
- Pressure areas
- Secondary infection in trauma
- Withdrawal Management

Go on courses (or organise one!)

- MAST Course can attend as an observer with faculty permission
- APLS
- Study Days

Every Day learning opportunities (If you have read the curriculum you can focus in on relevant conversations)

- Discussions at handover
- SIMs
- Meetings
- Reflective practice (turn it into a CbD)