

CCC respiratory section

Sample Protocols, Order Sets, Guidelines and Teaching Tools

- Sample guidelines and protocols
 - ARDSnet ventilator protocol
 - .pdf labelled ventilator_protocol_2008-07 (2008)
 - Rutgers-Robert Wood Johnson guidelines for adult mechanical ventilation
 - .pdf labelled mechanical ventilation 2015 (2015)
 - Credit Constantine Bulautan, MD, Rutgers-Robert Wood Johnson School of Medicine
 - Non-invasive positive pressure ventilation protocol
 - Already on website. .pdf labelled Non-invasive (2014)
 - Credit Orlando Kirton, MD

- Sample guidelines and protocols
 - Percutaneous trach guideline
 - Already on the website, .pdf labelled Percutaneous (2014)
 - Credit Orlando Kirton
 - Emergent airway management for laryngectomy/tracheostomy patients
 - .pdfs labelled Patent Airway algorithms and Laryngectomy Algorithm (2014)
 - *Credit statement: The Association of Anaesthetists of Great Britain & Ireland grants readers the right to reproduce the algorithms included in this article (Figs 1 and 2) for non-commercial purposes (including in scholarly journals, books and non-commercial websites), without the need to request permission. Each reproduction of any algorithm must be accompanied by the following text: Reproduced from McGrath BA, Bates L, Atkinson D, Moore JA. Multidisciplinary guidelines for the management of tracheostomy and laryngectomy airway emergencies. Anaesthesia. 2012 Jun 26. doi: 10.1111/j.1365-2044.2012.07217, with permission from the Association of Anaesthetists of Great Britain & Ireland/Blackwell Publishing Ltd*

- Sample guidelines and protocols
 - Proning protocol from supplementary appendix of NEJM article
 - Supplemental material from NEJM proning article, Pages 6 – 8 describe proning protocol:
 - supplemental appendix to article N Engl J Med 2013; 368:2159-2168 labelled as .pdf nejmoa1214103_appendix

- Sample guidelines and protocols
 - Vanderbilt University School of Medicine, Division of Trauma and Surgical Critical Care ventilator management guidelines link (2015):
 - https://medschool.vanderbilt.edu/trauma-and-scc/files/trauma-and-scc/public_files/Protocols/Ventilator%20Management.pdf

- Sample Guidelines and protocols
 - CDC flowsheet for diagnosis of healthcare associated pneumonia
 - .pdf labelled 6pscVAPcurrent
 - Freely available on CDC website

- Sample orderset
 - Ventilator liberation orderset. Credit Orlando Kirton
 - .pdf labelled Ventilator_liberation_order_set-resp

- Refresher materials/talks/power points/ curriculum outlines
 - Online ventilator primer:
 - https://courses.washington.edu/med610/mechanicalventilation/mv_primer.html

- Ventilator basics lecture:
- .PPT labeled MechVentilation 2016 c
- Created 1/2016, credit: Dr. John Denny,
Rutgers-Robert Wood Johnson School of
Medicine

- Refresher materials/talks/power points/ curriculum outlines
 - APRV/ARDS lecture
 - Created 2015 .pdf labelled ARDS/APRV lecture credit
Matthew Lissauer, Rutgers-Robert Wood Johnson
School of Medicine

- Published evidence based guidelines: secretion clearance
 - AARC Clinical Practice Guideline: Effectiveness of **Non-**pharmacologic Airway Clearance Therapies in Hospitalized Patients. AARC evidence based guideline (2013) freely available at <http://www.rcjournal.com/cpgs/>
 - .pdf labelled nonpharmacologic_2013
 - AARC Clinical Practice Guideline: Effectiveness of Pharmacologic Airway Clearance Therapies in Hospitalized Patients. AARC evidence based guideline (2015) freely available at <http://www.rcjournal.com/cpgs/>
 - . pdf labelled pharm.cpg

Educational and Informational links

- Published evidence based guidelines: trauma
 - Management of Pulmonary Contusion and Flail Chest. EAST clinical practice guideline: [J Trauma. 73\(5\):S351-S361](#)
 - .pdf freely available at <http://www.east.org/education/practice-management-guidelines/pulmonary-contusion-and-flail-chest,-management-of>
 - . Pdf labelled Management_of_pulmonary_contusion
 - The Acute Cardiopulmonary Management of Patients With Cervical Spinal Cord Injuries:
<http://journals.lww.com/neurosurgery/pages/articleviewer.aspx?year=2013&issue=03002&article=00011&type=abstract>
 - Open access article: Neurosurgery 72:84-92 (2013)
 - PMID 23417181

- Published evidence based guidelines
 - Practice guidelines for the perioperative management of patients with obstructive sleep apnea: an updated report by the American Society of Anesthesiologists Task Force on Perioperative Management of Patients with Obstructive Sleep Apnea
 - [Anesthesiology](#). 2014 Feb;120(2):268-86
 - PMID: 24346178; open access .pdf labelled OSA_surgery

- Published evidence based guidelines:
treatment of hospital acquired pneumonia
 - IDSA guidelines (2005...update in progress)
 - Freely available at:
http://www.idsociety.org/Organ_System/
 - Published: Am J Respir Crit Care Med ; 2005 ; 171 : 388-416
 - .pdf labeled “HAP”

- Published evidence based guidelines:
treatment of community acquired pneumonia
 - IDSA guidelines (2007...update in progress)
 - Freely available at:
http://www.idsociety.org/Organ_System/
 - Published in Clinical Infectious Diseases ; 2007 ; 44 : S27-S72
 - .pdf labeled “Clin Infect Dis.-2007-Mandell-S27-72”

- Key relevant articles
 - ARDS definition
 - ARDS Berlin criteria:
 - <http://jama.jamanetwork.com/article.aspx?articleID=160659>
 - PMID: 22797452

- Key relevant articles: Low tidal volume ventilation
 - Link to NEJM article demonstrating improved survival with low tidal volumes
 - <http://www.nejm.org/doi/full/10.1056/NEJM200005043421801>
 - PMID: 10793162
 - Link to meta-analysis of lung protective ventilation in non-ARDS patients:
 - <http://www.ccforum.com/content/18/2/211>
 - PMID: 24762100
 - Another meta-analysis of LTV in non-ARDS patients:
 - <http://jama.jamanetwork.com/article.aspx?articleid=1386591>
 - PMID: 23093163

- Key relevant articles: APRV as open lung ventilation
 - Clinical introduction to APRV:
 - [http://www.ccjm.org/index.php?id=107953&tx_ttnews\[tt_news\]=365201&cHash=623cd2d8d73a88abcfe0ce400a1b6237](http://www.ccjm.org/index.php?id=107953&tx_ttnews[tt_news]=365201&cHash=623cd2d8d73a88abcfe0ce400a1b6237)
 - PMID: 21285342
 - http://journals.lww.com/ccmjournal/Abstract/2005/03001/Other_approaches_to_open_lung_ventilation_Airway.19.aspx
 - PMID: 15753733

- Key relevant articles
 - Link to JAMA article comparing higher to lower peep in ARDS
 - <http://jama.jamanetwork.com/article.aspx?articleid=185447>
 - PMID: 20197533

- Key Relevant articles

- Prone positioning for ARDS:

- <http://www.nejm.org/doi/full/10.1056/NEJMoa1214103>

- PMID: 23688302

- Daily awakening/spontaneous breathing trial coordination:

- [ABCDEhttp://journal.publications.chestnet.org/article.aspx?articleID=1045197](http://journal.publications.chestnet.org/article.aspx?articleID=1045197)

- PMID: 21051398

- Key relevant articles: ECMO for ARDS
 - Link to CESAR trial comparing ECMO to standard of care vent management:
<http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2809%2961069-2/fulltext>
 - PMID: 19762075
 - Link to ECMO use for H1N1 patients:
<http://jama.jamanetwork.com/article.aspx?articleid=184800>
 - PMID: 19822628

- Key relevant articles: pulmonary HTN
 - Clinical summary of treatment of pulmonary hypertension in the ICU:
http://www.atsjournals.org/doi/abs/10.1164/rccm.201104-0662CI?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=c_r_pub%3Dpubmed&#.VoKhWFLD9IQ
 - PMID: 21700906

- Key relevant articles: non-invasive ventilation for COPD and cardiogenic pulmonary edema: (there is mixed/poor evidence for use in other pathologies of respiratory failure)
 - <http://www.ncbi.nlm.nih.gov/pubmed/15266518>
 - PMID: 15266518 (2004)
 - <http://www.ncbi.nlm.nih.gov/pubmed?term=23728654>
 - PMID: 23728654 (2013)

- Specialty society links:
 - Society of Critical Care Medicine:
 - <http://www.SCCM.org>
 - American College of Chest Physicians
 - <https://www.chestnet.org/>
 - American Thoracic Society
 - <http://www.thoracic.org/>
 - European Society of Intensive Care Medicine
 - <http://www.esicm.org/>

- Health Care agencies:
 - AHRQ: Agency for Health Care Research and Quality
 - Links to Comprehensive Unit Safety Programs (CUSP) including those for ventilated patients
 - www.ahrq.gov
 - Center for Disease Control and Prevention (CDC) VAP website
 - <http://www.cdc.gov/HAI/vap/vap.html>

- Health Care Agencies

- Institute for Healthcare Improvement ventilator associated pneumonia prevention bundle

- (requires login/membership)

- <http://www.ihl.org/resources/Pages/Tools/VentilatorBundleChecklist.aspx>