

ICM7078 Diagnostic Tools in Critical Illness

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1.

Theerawit P, Na Petvicharn C, Tangsujaritvijit V, Sutherasan Y. The Correlation Between Arterial Lactate and Venous Lactate in Patients With Sepsis and Septic Shock. *Journal of Intensive Care Medicine*. 2018 Feb;33(2):116–20.

2.

Kelly AM, Klim S, Rees SE. Agreement between mathematically arterialised venous versus arterial blood gas values in patients undergoing non-invasive ventilation: a cohort study. *Emergency Medicine Journal*. 2014 Oct;31(e1):e46–9.

3.

Browning R, Datta D, Gray AJ, Graham C. Peripheral venous and arterial lactate agreement in septic patients in the Emergency Department. *European Journal of Emergency Medicine*. 2014 Apr;21(2):139–41.

4.

2-E5: *Critical Care Medicine* 2. *Respirology*. 2013 Nov;18:195–7.

5.

Arteriovenous blood gas agreement in intensive care patients with varying levels of circulatory compromise: a pilot study. Available from:
https://www.cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Publications/CCR%20Journal/Previous%20Editions/December%202015/ccr_17_4_011215-253.pdf

6.

Theerawit P, Na Petvicharn C, Tangsujaritvijit V, Sutherasan Y. The Correlation Between Arterial Lactate and Venous Lactate in Patients With Sepsis and Septic Shock. *Journal of Intensive Care Medicine*. 2018 Feb;33(2):116–20.

7.

Paquet AL, Valli V, Philippon AL, Devilliers C, Bloom B, Hausfater P, et al. Agreement between arterial and venous lactate in emergency department patients. *European Journal of Emergency Medicine*. 2016 Nov;

8.

McKeever TM, Hearson G, Housley G, Reynolds C, Kinnear W, Harrison TW, et al. Using venous blood gas analysis in the assessment of COPD exacerbations: a prospective cohort study. *Thorax*. 2016 Mar;71(3):210–5.

9.

Langdorf MI, Medak AJ, Hendey GW, Nishijima DK, Mower WR, Raja AS, et al. Prevalence and Clinical Import of Thoracic Injury Identified by Chest Computed Tomography but Not Chest Radiography in Blunt Trauma: Multicenter Prospective Cohort Study. *Annals of Emergency Medicine*. 2015 Dec;66(6):589–600.

10.

Kanani AN, Hartshorn S. NICE clinical guideline NG39: Major trauma: assessment and initial management. *Archives of disease in childhood - Education & practice edition*. 2017 Feb;102(1):20–3.

11.

Standard of Practice and Guidance for Trauma Radiology in Severely Injured Patients [Internet]. Available from: https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr155_traumaradiol.pdf

12.

Gunnerson K, Saul M, He S, Kellum J. Lactate versus non-lactate metabolic acidosis: a retrospective outcome evaluation of critically ill patients. *Critical Care*. 2006;10(1).

13.

Yunos NM, Bellomo R, Hegarty C, Story D, Ho L, Bailey M. Association Between a Chloride-Liberal vs Chloride-Restrictive Intravenous Fluid Administration Strategy and Kidney Injury in Critically Ill Adults. *JAMA*. 2012 Oct 17;308(15).

14.

Kaplan LJ, Kellum JA. COMPARISON OF ACID BASE MODELS FOR PREDICTION OF HOSPITAL MORTALITY FOLLOWING TRAUMA. *Shock*. 2007 Dec;

15.

Rossaint R, Bouillon B, Cerny V, Coats TJ, Duranteau J, Fernández-Mondéjar E, et al. Management of bleeding following major trauma: an updated European guideline. *Critical Care*. 2010;14(2).

16.

Bloom BM, Grundlingh J, Bestwick JP, Harris T. The role of venous blood gas in the Emergency Department. *European Journal of Emergency Medicine*. 2014 Apr;21(2):81-8.

17.

SGARBOSSA EB. Recent Advances in the Electrocardiographic Diagnosis of Myocardial Infarction: Left Bundle Branch Block and Pacing. *Pacing and Clinical Electrophysiology*. 1996 Sep;19(9):1370-9.

18.

Sgarbossa EB, Pinski SL, Gates KB, Wagner GS. Early electrocardiographic diagnosis of acute myocardial infarction in the presence of ventricular paced rhythm. *The American Journal of Cardiology*. 1996 Feb;77(5):423-4.

19.

Sgarbossa Criteria are Highly Specific for Acute Myocardial Infarction with Pacemakers. *Western Journal of Emergency Medicine* [Internet]. 2010;11(4). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2967688/>

20.

Libby P. Mechanisms of Acute Coronary Syndromes and Their Implications for Therapy. *New England Journal of Medicine*. 2013 May 23;368(21):2004–13.

21.

Coronary Disease in Emergency Department Chest Pain Patients with Recent Negative Stress Testing. *Western Journal of Emergency Medicine* [Internet]. 2010;11(4). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2967694/>

22.

Cai Q, Mehta N, Sgarbossa EB, Pinski SL, Wagner GS, Califf RM, et al. The left bundle-branch block puzzle in the 2013 ST-elevation myocardial infarction guideline: From falsely declaring emergency to denying reperfusion in a high-risk population. Are the Sgarbossa Criteria ready for prime time? *American Heart Journal*. 2013 Sep;166(3):409–13.

23.

Neeland IJ, Kontos MC, de Lemos JA. Evolving Considerations in the Management of Patients With Left Bundle Branch Block and Suspected Myocardial Infarction. *Journal of the American College of Cardiology*. 2012 Jul;60(2):96–105.

24.

Meyers HP, Limkakeng AT, Jaffa EJ, Patel A, Theiling BJ, Rezaie SR, et al. Validation of the modified Sgarbossa criteria for acute coronary occlusion in the setting of left bundle branch block: A retrospective case-control study. *American Heart Journal*. 2015 Dec;170(6):1255–64.

25.

Smith SW, Dodd KW, Henry TD, Dvorak DM, Pearce LA. Diagnosis of ST-Elevation Myocardial Infarction in the Presence of Left Bundle Branch Block With the ST-Elevation to S-Wave Ratio in a Modified Sgarbossa Rule. *Annals of Emergency Medicine*. 2012 Dec;60(6):766–76.

26.

Sgarbossa EB, Pinski SL, Barbagelata A, Underwood DA, Gates KB, Topol EJ, et al. Electrocardiographic Diagnosis of Evolving Acute Myocardial Infarction in the Presence of Left Bundle-Branch Block. *New England Journal of Medicine*. 1996 Feb 22;334(8):481–7.

27.

Kaddoura S. Echo made easy [Internet]. 2nd ed. Edinburgh: Churchill Livingstone; 2009. Available from:
<http://ezproxy.library.qmul.ac.uk/login?url=http://www.vlebooks.com/vleweb/product/openreader?id=QMUL&isbn=9780702050602&uid=^u>

28.

Bonita Anderson. Echocardiography: The Normal Examination and Echocardiographic Measurements [Internet]. Echotext Pty Ltd; 3rd Revised edition edition; 31AD. Available from:
https://www.amazon.co.uk/Echocardiography-Normal-Examination-Echocardiographic-Measurements/dp/0992322219/ref=sr_1_1?s=books&ie=UTF8&qid=1527070994&sr=1-1&keywords=Echocardiography%3A+The+Normal+Examination+of+Echocardiographic+Measurements

29.

Houghton AR. Making sense of echocardiography: a hands-on guide [Internet]. London, [England]: Hodder Arnold; 2009. Available from:
<https://ebookcentral.proquest.com/lib/gmul-ebooks/detail.action?docID=564813>

30.

Abdominal x-ray review: ABDO X (summary) | Radiology Reference Article | Radiopaedia.org [Internet]. Available from:
<https://radiopaedia.org/articles/abdominal-x-ray-review-abdo-x-summary>

31.

Focussed Assessment with Sonography for Trauma (FAST) scan | Radiology Reference Article | Radiopaedia.org [Internet]. Available from: <https://radiopaedia.org/articles/focussed-assessment-with-sonography-for-trauma-fast-scan>

32.

Lower gastrointestinal bleeding | Radiology Reference Article | Radiopaedia.org [Internet]. Available from: <https://radiopaedia.org/articles/lower-gastrointestinal-bleeding>

33.

Intestinal ischaemia | Radiology Reference Article | Radiopaedia.org [Internet]. Available from: <https://radiopaedia.org/articles/intestinal-ischaemia>

34.

Acute pancreatitis | Radiology Reference Article | Radiopaedia.org [Internet]. Available from: <https://radiopaedia.org/articles/acute-pancreatitis>

35.

Bowel obstruction | Radiology Reference Article | Radiopaedia.org [Internet]. Available from: <https://radiopaedia.org/articles/bowel-obstruction>

36.

Haemoperitoneum | Radiology Reference Article | Radiopaedia.org [Internet]. Available from: <https://radiopaedia.org/articles/haemoperitoneum>

37.

Abdominal trauma | Radiology Reference Article | Radiopaedia.org [Internet]. Available from: <https://radiopaedia.org/articles/abdominal-trauma>

38.

Surgical haemostatic material | Radiology Reference Article | Radiopaedia.org [Internet]. Available from: <https://radiopaedia.org/articles/surgical-haemostatic-material>

39.

Is Contrast Induced Nephropathy (CIN) Really Not a Thing? - REBEL EM - Emergency Medicine Blog [Internet]. Available from: <http://rebelem.com/contrast-induced-nephropathy-cin-really-not-thing/>

40.

Does contrast cause kidney injury? The evidence - First10EM [Internet]. Available from: <https://first10em.com/cin/>

41.

Contrast Manual | American College of Radiology [Internet]. Available from: <https://www.acr.org/Clinical-Resources/Contrast-Manual>

42.

MR Safety | American College of Radiology [Internet]. Available from: <https://www.acr.org/Clinical-Resources/Radiology-Safety/MR-Safety>

43.

The Radiology Assistant : Welcome to the Radiology Assistant [Internet]. Available from: <http://radiologyassistant.nl/>

44.

HeadNeckBrainSpine [Internet]. Available from: <http://headneckbrainspine.com/>

45.

Atkinson P, Bowra J, Milne J, Lewis D, Lambert M, Jarman B, et al. International Federation for Emergency Medicine Consensus Statement: Sonography in hypotension and cardiac arrest (SHoC): An international consensus on the use of point of care ultrasound for undifferentiated hypotension and during cardiac arrest. *CJEM*. 2017 Nov;19(06):459-70.

46.

Atkinson PR, Milne J, Diegelmann L, Lamprecht H, Stander M, Lussier D, et al. Does Point-of-Care Ultrasonography Improve Clinical Outcomes in Emergency Department Patients With Undifferentiated Hypotension? An International Randomized Controlled Trial From the SHoC-ED Investigators. *Annals of Emergency Medicine*. 2018 Jun;

47.

Labovitz AJ, Noble VE, Bierig M, Goldstein SA, Jones R, Kort S, et al. Focused Cardiac Ultrasound in the Emergent Setting: A Consensus Statement of the American Society of Echocardiography and American College of Emergency Physicians. *Journal of the American Society of Echocardiography*. 2010 Dec;23(12):1225-30.

48.

Breitkreutz R, Walcher F, Seeger FH. Focused echocardiographic evaluation in resuscitation management: Concept of an advanced life support-conformed algorithm. *Critical Care Medicine*. 2007 May;35(Suppl):S150-61.

49.

Price S, Via G, Sloth E, Guarracino F, Breitkreutz R, Catena E, et al. Echocardiography practice, training and accreditation in the intensive care: document for the World Interactive Network Focused on Critical Ultrasound (WINFOCUS). *Cardiovascular Ultrasound*. 2008 Dec;6(1).

50.

Via G, Hussain A, Wells M, Reardon R, ElBarbary M, Noble VE, et al. International Evidence-Based Recommendations for Focused Cardiac Ultrasound. *Journal of the American Society of Echocardiography*. 2014 Jul;27(7):683.e1-683.e33.

51.

Sonography in Hypotension and Cardiac Arrest (SHoC) Protocol Consensus Statement IFEM [Internet]. Available from: <https://www.ifem.cc/wp-content/uploads/2016/02/PS-7-Sonography-in-Hypotension-and-Cardiac-Arrest-Consensus-Statement.pdf>

52.

Lyon RM, Egan G, Gowens P, Andrews P, Clegg G. Issues around conducting prehospital research on out-of-hospital cardiac arrest: lessons from the TOPCAT study. *Emergency Medicine Journal*. 2010 Aug 1;27(8):637–8.

53.

Fair J, Mallin MP, Adler A, Ockerse P, Steenblik J, Tonna J, et al. Transesophageal Echocardiography During Cardiopulmonary Resuscitation Is Associated With Shorter Compression Pauses Compared With Transthoracic Echocardiography. *Annals of Emergency Medicine*. 2019 Feb;

54.

Rodriguez RM, Lum-Lung M, Dixon K, Nothmann A. A prospective study on esophageal Doppler hemodynamic assessment in the ED. *The American Journal of Emergency Medicine*. 2006 Oct;24(6):658–63.

55.

Kadappu KK, Thomas L. Tissue Doppler Imaging in Echocardiography: Value and Limitations. *Heart, Lung and Circulation*. 2015 Mar;24(3):224–33.

56.

Gulati VK, Katz WE, Follansbee WP, Gorcsan J. Mitral annular descent velocity by tissue Doppler echocardiography as an index of global left ventricular function. *The American Journal of Cardiology*. 1996 May;77(11):979–84.

57.

Michard F, Teboul JL. Using heart-lung interactions to assess fluid responsiveness during mechanical ventilation. *Critical Care*. 2000;4(5).

58.

Claire-Del Granado R, Mehta RL. Fluid overload in the ICU: evaluation and management. *BMC Nephrology*. 2016 Dec;17(1).

59.

Acheampong A, Vincent JL. A positive fluid balance is an independent prognostic factor in patients with sepsis. *Critical Care*. 2015 Dec;19(1).

60.

(423) Pinterest [Internet]. Available from:
<https://www.pinterest.co.uk/pin/7459155609437074/?!p=true>

61.

Baumgartner H, Hung J, Bermejo J, Chambers JB, Evangelista A, Griffin BP, et al. Echocardiographic assessment of valve stenosis: EAE/ASE recommendations for clinical practice. *European Journal of Echocardiography*. 2009 Jan 1;10(1):1-25.

62.

Percutaneous balloon dilatation of the mitral valve: An analysis of echocardiographic variables related to outcome and the mechanism of dilatation. Available from:
<https://heart.bmj.com/content/heartjnl/60/4/299.full.pdf>

63.

Ponikowski P, Voors AA, Anker SD, Bueno H, Cleland JGF, Coats AJS, et al. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. *European Heart Journal*. 2016 Jul 14;37(27):2129-200.

64.

Seraphim A, Paschou SA, Grapsa J, Nihoyannopoulos P. Pocket-Sized Echocardiography Devices: One Stop Shop Service? *Journal of Cardiovascular Ultrasound*. 2016;24(1).

65.

Antonakaki D, Mirza SA, Sundar S, Grapsa J. Epstein-Barr futile myocarditis requiring urgent orthotopic heart transplantation. *Perfusion*. 2016 Jul;31(5):431-2.

66.

Ultrasound in the evaluation of penetrating thoraco-abdominal trauma: a review of the literature [Internet]. Available from:
<http://www.medultrason.ro/ultrasound-in-the-evaluation-of-penetrating-thoraco-abdominal-trauma-a-review-of-the-literature/>

67.

Quinn AC, Sinert R. What is the utility of the Focused Assessment with Sonography in Trauma (FAST) exam in penetrating torso trauma? *Injury*. 2011 May;42(5):482-7.

68.

Sauter TC, Hoess S, Lehmann B, Exadaktylos AK, Haider DG. Detection of pneumothoraces in patients with multiple blunt trauma: use and limitations of eFAST. *Emergency Medicine Journal*. 2017 Sep;34(9):568-72.

69.

Al Deeb M, Barbic S, Featherstone R, Dankoff J, Barbic D. Point-of-care Ultrasonography for the Diagnosis of Acute Cardiogenic Pulmonary Edema in Patients Presenting With Acute Dyspnea: A Systematic Review and Meta-analysis. *Academic Emergency Medicine*. 2014 Aug;21(8):843-52.

70.

McGiverny K, Atkinson P, Lewis D, Taylor L, Harris T, Gadd K, et al. Emergency department ultrasound for the detection of B-lines in the early diagnosis of acute decompensated heart

failure: a systematic review and meta-analysis. CJEM. 2018 May;20(03):343-52.

71.

Pivetta E, Goffi A, Lupia E, Tizzani M, Porrino G, Ferreri E, et al. Lung Ultrasound-Implemented Diagnosis of Acute Decompensated Heart Failure in the ED. Chest. 2015 Jul;148(1):202-10.

72.

Laursen CB, Sloth E, Lassen AT, Christensen R dePont, Lambrechtsen J, Madsen PH, et al. Point-of-care ultrasonography in patients admitted with respiratory symptoms: a single-blind, randomised controlled trial. The Lancet Respiratory Medicine. 2014 Aug;2(8):638-46.

73.

Russell FM, Ehrman RR, Cosby K, Ansari A, Tseeng S, Christain E, et al. Diagnosing Acute Heart Failure in Patients With Undifferentiated Dyspnea: A Lung and Cardiac Ultrasound (LuCUS) Protocol. Academic Emergency Medicine. 2015 Feb;22(2):182-91.

74.

Volpicelli G, Caramello V, Cardinale L, Mussa A, Bar F, Frascisco MF. Bedside ultrasound of the lung for the monitoring of acute decompensated heart failure. The American Journal of Emergency Medicine. 2008 Jun;26(5):585-91.

75.

Agricola E, Bove T, Oppizzi M, Marino G, Zangrillo A, Margonato A, et al. "Ultrasound Comet-Tail Images": A Marker Of Pulmonary Edema. Chest. 2005 May;127(5):1690-5.

76.

Chiem AT, Chan CH, Ander DS, Kobylivker AN, Manson WC. Comparison of Expert and Novice Sonographers' Performance in Focused Lung Ultrasonography in Dyspnea (FLUID) to Diagnose Patients With Acute Heart Failure Syndrome. Academic Emergency Medicine. 2015 May;22(5):564-73.

77.

Volpicelli G, Elbarbary M, Blaivas M, Lichtenstein DA, Mathis G, Kirkpatrick AW, et al. International evidence-based recommendations for point-of-care lung ultrasound. *Intensive Care Medicine*. 2012 Apr;38(4):577-91.

78.

Oveland NP, Lossius HM, Wemmelund K, Stokkeland PJ, Knudsen L, Sloth E. Using Thoracic Ultrasonography to Accurately Assess Pneumothorax Progression During Positive Pressure Ventilation. *Chest*. 2013 Feb;143(2):415-22.

79.

Martindale JL, Wakai A, Collins SP, Levy PD, Diercks D, Hiestand BC, et al. Diagnosing Acute Heart Failure in the Emergency Department: A Systematic Review and Meta-analysis. *Academic Emergency Medicine*. 2016 Mar;23(3):223-42.

80.

Frassi F, Gargani L, Tesorio P, Raciti M, Mottola G, Picano E. Prognostic Value of Extravascular Lung Water Assessed With Ultrasound Lung Comets by Chest Sonography in Patients With Dyspnea and/or Chest Pain. *Journal of Cardiac Failure*. 2007 Dec;13(10):830-5.

81.

Gargani L, Pang PS, Frassi F, Miglioranza MH, Dini FL, Landi P, et al. Persistent pulmonary congestion before discharge predicts rehospitalization in heart failure: a lung ultrasound study. *Cardiovascular Ultrasound*. 2015 Dec;13(1).

82.

Cortellaro F, Colombo S, Coen D, Duca PG. Lung ultrasound is an accurate diagnostic tool for the diagnosis of pneumonia in the emergency department. *Emergency Medicine Journal*. 2012 Jan;29(1):19-23.

83.

American Journal of Respiratory and Critical Care Medicine. Available from:
<https://www.atsjournals.org/doi/abs/10.1164/rccm.201003-0369OC>

84.

Caiulo VA, Gargani L, Caiulo S, Fisicaro A, Moramarco F, Latini G, et al. Lung ultrasound in bronchiolitis: comparison with chest X-ray. *European Journal of Pediatrics*. 2011 Nov;170(11):1427-33.

85.

Muslu B, Sert H, Kaya A, Demircioglu RI, Gözdemir M, Usta B, et al. Use of Sonography for Rapid Identification of Esophageal and Tracheal Intubations in Adult Patients. *Journal of Ultrasound in Medicine*. 2011 May;30(5):671-6.

86.

Xirouchaki N, Magkanas E, Vaporidi K, Kondili E, Plataki M, Patrianakos A, et al. Lung ultrasound in critically ill patients: comparison with bedside chest radiography. *Intensive Care Medicine*. 2011 Sep;37(9):1488-93.

87.

Zanobetti M, Poggioni C, Pini R. Can Chest Ultrasonography Replace Standard Chest Radiography for Evaluation of Acute Dyspnea in the ED? *Chest*. 2011 May;139(5):1140-7.

88.

Ding W, Shen Y, Yang J, He X, Zhang M. Diagnosis of Pneumothorax by Radiography and Ultrasonography. *Chest*. 2011 Oct;140(4):859-66.

89.

Copetti R, Soldati G, Copetti P. Chest sonography: a useful tool to differentiate acute cardiogenic pulmonary edema from acute respiratory distress syndrome. *Cardiovascular Ultrasound*. 2008 Apr;6(1).

90.

Chaikof EL, Brewster DC, Dalman RL, Makaroun MS, Illig KA, Sicard GA, et al. The care of patients with an abdominal aortic aneurysm: The Society for Vascular Surgery practice guidelines. *Journal of Vascular Surgery*. 2009 Oct;50(4):S2-49.

91.

Lederle FA. Does This Patient Have Abdominal Aortic Aneurysm? *JAMA*. 1999 Jan 6;281(1).

92.

Towards evidence-based emergency medicine: best BETs from the Manchester Royal Infirmary [Internet]. Available from:
<https://emj.bmj.com/content/emmermed/25/4/222.1.full.pdf>

93.

Overview of abdominal aortic aneurysm - UpToDate [Internet]. Available from:
<https://www.uptodate.com/contents/overview-of-abdominal-aortic-aneurysm>

94.

Long B, April MD. What Is the Diagnostic Accuracy of Point-of-Care Ultrasonography in Patients With Suspected Blunt Thoracoabdominal Trauma? *Annals of Emergency Medicine*. 2019 Feb;

95.

Coursebook transgit ch08 by EFSUMB - Issuu [Internet]. Available from:
https://issuu.com/efsumb/docs/coursebook-transgit_ch08?e=3336122/6603975

96.

Atkinson NSS, Bryant RV, Dong Y, Maaser C, Kucharzik T, Maconi G, et al. How to perform gastrointestinal ultrasound: Anatomy and normal findings. *World Journal of*

Gastroenterology. 2017 Oct 14;23(38):6931–41.

97.

Hoffmann B, Nürnberg D, Westergaard MC. Focus on abnormal air. European Journal of Emergency Medicine. 2012 Oct;19(5):284–91.

98.

Moriwaki Y. Ultrasonography for the Diagnosis of Intraperitoneal Free Air in Chest-Abdominal-Pelvic Blunt Trauma and Critical Acute Abdominal Pain. Archives of Surgery. 2009 Feb 16;144(2).

99.

Ultrasound-assisted cannulation of the internal jugular vein: A prospective comparison to the external landmark-guided technique. Available from:
<https://www.ahajournals.org/doi/pdf/10.1161/01.CIR.87.5.1557>

100.

Best practice recommendations for cleaning and disinfection of ultrasound transducers whilst maintaining transducer integrity [Internet]. Available from:
http://efsumb.org/safety/resources/2017-probe_cleaning.pdf

101.

Leidel BA, Kirchhoff C, Bogner V, Braunstein V, Biberthaler P, Kanz KG. Comparison of intraosseous versus central venous vascular access in adults under resuscitation in the emergency department with inaccessible peripheral veins. Resuscitation. 2012 Jan;83(1):40–5.

102.

Gottlieb M, Russell FM. How Safe Is the Ultrasonographically Guided Peripheral Internal Jugular Line? Annals of Emergency Medicine. 2018 Jan;71(1):132–7.

103.

Millington SJ, Koenig S. Better With Ultrasound. *Chest*. 2018 Jan;153(1):224–32.

104.

Nagdev A, Mantuani D. A novel in-plane technique for ultrasound-guided pericardiocentesis. *The American Journal of Emergency Medicine*. 2013 Sep;31(9):1424.e5-1424.e9.

105.

Stewart J, National Confidential Enquiry into Patient Outcome and Death. Adding insult to injury: a review of the care of patients who died in hospital with a primary diagnosis of acute kidney injury (acute renal failure) [Internet]. London: National Confidential Enquiry into Patient Outcome and Death; 2009. Available from: <http://www.ncepod.org.uk/2009sc.htm>

106.

Kidney Disease: Improving Global Outcomes (KDIGO) Acute Kidney Injury Work Group. KDIGO Clinical Practice Guideline for Acute Kidney Injury [Internet]. Available from: <https://kdigo.org/wp-content/uploads/2016/10/KDIGO-2012-AKI-Guideline-English.pdf>

107.

Coca SG, King JT, Rosenthal RA, Perkal MF, Parikh CR. The duration of postoperative acute kidney injury is an additional parameter predicting long-term survival in diabetic veterans. *Kidney International*. 2010 Nov;78(9):926–33.

108.

Atkinson P, Bowra J, Milne J, Lewis D, Lambert M, Jarman B, et al. International Federation for Emergency Medicine Consensus Statement: Sonography in hypotension and cardiac arrest (SHoC): An international consensus on the use of point of care ultrasound for undifferentiated hypotension and during cardiac arrest. *CJEM*. 2017 Nov;19(06):459–70.

109.

The RUSH Exam: Rapid Ultrasound in Shock in the Evaluation of the Critically Ill [Internet]. Available from:
<https://pdfs.semanticscholar.org/86a1/b3319b1f30266c99e378720af7a298973572.pdf>

110.

The Role of Ultrasound in Renal Insufficiency: The Essentials. *Ultrasound Quarterly* [Internet]. 21(4):227-44. Available from:
<http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00013644-200512000-00003&LSLINK=80&D=ovft>

111.

Soft Tissue Ultrasound [Internet]. Available from:
<https://www.acep.org/sonoguide/basic/soft-tissue-ultrasound/>

112.

Perera P, Mailhot T, Riley D, Mandavia D. The RUSH Exam: Rapid Ultrasound in SHock in the Evaluation of the Critically Ill. *Emergency Medicine Clinics of North America*. 2010 Feb;28(1):29-56.