

Deltex Medical

CardioQ-ODM Bibliography



June 2010

CardioQ-ODM

1. Abbas SM, Hill AG. Systematic review of the literature for the use of oesophageal Doppler monitor for fluid replacement in major abdominal surgery. *Anaesthesia* 2008; **63**:44-51
2. Absi MA, Lutterman J, Wetzel GT. Noninvasive cardiac output monitoring in the pediatric cardiac intensive care unit. *Current Opinion in Cardiology* 2010; **25**:77-79
3. Addy EV, Higgins DJ, Singer M. Use of the oesophageal Doppler to facilitate resuscitation. *Emergency Medicine* 1993; **5(1)**:70
4. Ahrens T. Stroke Volume Optimization Versus Central Venous Pressure in Fluid Management. *Crit Care Nurse* 2010; **30**:71-72
5. Aka EJ, Cholley BP, Mateo J, Hussam K, Hayon D, Rabuel C, Payen DM. Effects of Fluid Loading on Ventilator-Induced variations in systolic pressure and stroke volume. *Crit Care Med* 2000; **28**:12
6. Atlas G, Mort T. Placement of the Esophageal Doppler Ultrasound Monitor Probe in Awake Patients. *Chest* 2001; **119(1)**:319
7. Ault A. CMS to cover Doppler monitoring during surgery, intensive care. *Chest Physician* 2007; **2**:7-9
8. Azevedo ZMA, Dutra MVP, Lima FC, Moliterno NV, Caixeta DML, Mota ICF, Rodrigues CS, Mafort KC. Transesophageal Doppler utilization in a pediatric intensive care unit in Brazil. 2007 Poster
9. Barclay L. Doppler-Guided fluid resuscitation improves post-op outcome. *Medscape Today* 2002
10. Bein B, Worthmann F, Tonner PH, Paris A, Steinfath M, Hedderich J, Scholz J. Comparison of esophageal Doppler, pulse contour analysis, and real-time pulmonary artery thermodilution for the continuous measurement of cardiac output. *J Cardiothorac Vasc Anesth* 2004; **18(2)**:185-189
11. Belot JP, Valtier B, del la Coussaye JE, Mottin DP. Continuous estimation of cardiac output in critically ill mechanically ventilated patients by a new transophageal Doppler probe. P241
12. Bennett ED, Chaloner E, Emberton M, Garfield M, Grocott M, Mythen M. Modernising care for patients undergoing major Surgery: improving patient outcomes and increasing clinical efficiency. 2005 June
13. Berton C, Cholley B. Equipment review: new techniques for cardiac output measurement - oesophageal Doppler, Fick principle using carbon dioxide, and pulse contour analysis. *Crit Care* 2002; **6(3)**:216-221
14. Biais M, Nouette-Gaulain K, Roullet S, Quinart A, Revel P, Sztark F. A Comparison of Stroke Volume Variation Measured by Vigileo/FloTrac System and Aortic Doppler Echocardiography. *Anesth & Analg* 2009; **109(2)**:466-469
15. Boldt J. Fluid management of patients undergoing abdominal surgery - more questions than answers. *Br J Anaesth* S352006; **23**:631-640
16. Brandt S, Reegueira T, Bracht H, Porta F, Djafarzadeh S, Takala J, Gorrasi J, Borotto E, Krejci V, Hildebrand LB, Bruegger LE, Beldi G, Wilkens L, Lepper PM, Kessler U, Jakob SM. Effect of fluid resuscitation on mortality and organ function in experimental sepsis models. *Crit Care* 2009; **13**:R186

17. Brienza N, Giglio MT, Marucci M, Fiore T. Does perioperative hemodynamic optimization protect renal function in surgical patients? A meta-analytic study. *Crit Care Med* 2009; **37(6)**:2079-2090
18. Buettner M, Schummer W, Huettemann E, Schenke S, van Hout N, Sakka SG. Influence of systolic-pressure-variation-guided intraoperative fluid management on organ function and oxygen transport. *Br J Anaesth* 2008; **101(2)**:194-199
19. Bundgaard-Nielsen M, Holte K, Secher NH, Kehlet H. Monitoring of peri-operative fluid administration by individualized goal-directed therapy. *Acta Anaesthesiol Scand* 2007; **51(3)**:331-441
20. Bundgaard-Nielsen M, Ruhnau B, Secher NH, Kehlet H. Flow-related techniques for preoperative goal-directed fluid optimization. *Br J Anaesth* 2007; **98(1)**:38-44
21. Bundgaard-Nielsen M, Jorgensen CC, Secher NH, Kehlet H. Functional intravascular volume deficit in patients before surgery. *Acta Anaesthesiol Scand* 2009; 1-6
22. Callow C. How to why to guide, Doppler Guided Intraoperative Fluid Management. NHS Technology Adoption Centre 2010; February
23. Callow C. Doppler Monitoring Reduces Hospital Stay. *Clinical Service Journal* 2010: March
24. Cannesson M, Desebbe O, Rosamel P, Delannoy B, Robin J, Bastien O, Lehot JJ. Pleth variability index to monitor the respiratory variations in the pulse oximeter plethysmographic waveform amplitude and predict fluid responsiveness in the operating theatre. *Br J Anaesth* 2008; **101**:200-206
25. Cannesson M, Vallet B, Michard F. Pulse pressure variation and stroke volume variation: from flying blind to flying right. *Br J Anaesth* 2009; **103(6)**:896-904
26. Catogni P, Provenchere S, Philip I, Daccache G, Depoix JP, Mestari M, Desmonts JM. Does esophageal Doppler accurately assess hemodynamic parameters in patients with aortic stenosis? *Anesthesiology* 1997 V87, No 3A, September
27. Cecconi M, Rhodes A, Perel A, Poelaert J. Haemodynamic monitoring in europe: a postal survey. *ESICM* 2006; **S35**:0119
28. Cecconi M, Rhodes A, Poloniecki J, Rocca GD, Grounds RM. Bench-to-bedside review: The importance of the precision of the reference technique in method comparison studies with specific reference to the measurement of cardiac output *Crit Care* 2009; **13(1)**:1-6
29. CEP Market Review. Haemodynamic Monitoring. CEP10016 2010: March
30. Centers for Medicare and Medicaid Services, Decision Memo for Ultrasound Diagnostic Procedures (CAG-00309R) May 22, 2007
31. Chappell D, Jacob M, Hofmann-Kiefer K, Conzen P, Rehm M. A Rational Approach to Perioperative Fluid Management. *Anesthesiology* 2008; 109: 723-740

32. Chatti R, de Rudniki S, Marque S, Dumenil AS, Descorps-Declere A, Cariou A, Duranteau J, Aout M, Vicaut E, Cholley BP. Comparison of two versions of the Vigileo-FloTrac™ system (1.03 and 1.07) for stroke volume estimation: a multicentre, blinded comparison with oesophageal Doppler measurements. *Br J Anaesth* 2009; **102(4)**: 463-469
33. Chemla D, Nitenberg A. Systolic duration, preload and afterload: is a new paradigm needed? *Intensive Care Medicine* 2006; **32(9)**:1454-1455
34. Chew MS, Poelaert J. Accuracy and repeatability of pediatric cardiac output measurement using Doppler: 20-year review of the literature. *Intensive Care Med* 2003; **29(11)**:1889-1894
35. Cholley BP, Singer M. Esophageal Doppler: Noninvasive Cardiac Output Monitor. *Echocardiography: A Jnl Of CV Ultrasound & Allied Tech* 2003; **20(8)**:763
36. Chytra I, Pradl R, Bosman R, Pelnar P, Kasal E, Zidkova A. Esophageal Doppler guided fluid management decreases blood lactate levels in multiple trauma patients: a randomized controlled trial. *Crit Care* 2007; **11**:R24
37. Clark DI, Ahmed AB, Baxendale BR, Moran CG. Cardiac output during hemiarthroplasty of the hip; A prospective, controlled trial of cemented and uncemented prostheses. *Journal of Bone and Joint Surgery* 2001: April
38. Clinical Services Journal News section. Recovery times cut by three weeks. *Clinical Services Journal* 2008; May:10
39. Concha MR, Mertz VF, Cortínez LI, González KA, Butte JM. Pulse Contour Analysis and Transesophageal Echocardiography: A Comparison of Measurements of Cardiac Output During Laparoscopic Colon Surgery. *Anesth & Analg* 2009; **109(1)**:114-118
40. Concha MR, Mertz VF, Cortínez LI, González, KA, Butte JM, Lopez, F, Pinedo G, Zuniga A. The Volume of Lactated Ringer's Solution Required to Maintain Preload and Cardiac Index During Open and Laparoscopic Surgery. *Anesth & Analg* 2009; **108(2)**:616-621
41. Continuing Professional Development: Enhanced Recovery MCQs and self-assessment questions & answers. *Current Anaesthesia & Critical Care* 2010; **21**:148-152
42. Conway D, Gold S. Targeted fluid administration for major surgery. *Current Anaesthesia & Critical Care* 2010; **21**:108-113
43. Conway DH, Mayall R, Abdul-Latif MS, Gilligan S, Tackaberry C. Randomised controlled trial investigating the influence of intravenous fluid titration using oesophageal Doppler monitoring during bowel surgery. *Anaesthesia* 2002; **57**:845-849
44. Crawford AM, Joshi GP. Perioperative Fluid Management: Minimization Versus Goal-Directed Therapy. *ASA Newsletter* 2000; Volume 72, Number 4
45. Cuschien J, Rivers E, Caruso J, Hays G, Dereczyk B, Ong R, Pamukov N, Guslits B, Katilius M, Horst H M. A comparison of transesophageal Doppler thermodilution and Fick cardiac output measurements in critically ill patients. *Poster 27th Educational and Scientific Symposium*; San Antonio, Texas, January 1998; **26(1)**:62A

46. Dark P. Trans-oesophageal Doppler derived cardiac output: is it valid in clinical practice? *British Journal of Intensive Care* 2006 Spring
47. Devanand A. Clinical Trial: Continuous hemodynamic monitoring by esophageal Doppler in severe sepsis. 2005
48. Dark P. Trans-oesophageal Doppler derived cardiac output: is it valid in clinical practice? *British Journal of Intensive Care* 2006 Spring
49. Dark PM, Delooz HH, Hillier V, Hanson J, Little RA. Monitoring the circulatory responses of shocked patients during fluid resuscitation in the emergency department. *Intensive Care Med* 2000; **26**:173-179
50. Dark PM, Singer M. The validity of trans-esophageal Doppler ultrasonography as a measure of cardiac output in critically ill adults. *Intensive Care Med* 2004; **30**:2060-2066
51. Darzi A. Report of the planned care clinical working group. Report of the planned care clinical working group 2007:1-20
52. Davison D, Junker C. Advances in Critical Care for the Nephrologist: Hemodynamic Monitoring and Volume Management. *Clin J Am Soc Nephrol* 2008; **3**:554-561
53. De Vaumas C, Lafanechere A, Kermarrec N, Desmots JM, Beloucif S. Assessment of preload and contractility using continuous esophageal Doppler cardiac output monitoring as a tool to optimize vasoactive support in septic shock. *Crit Care Med* 2001; **95**:A427
54. De Vaumas C, Poussant T, Dupont H, Kermarrec N, Plantefeve G, Paugam C, Mantz J, Desmots J. Do indicators of esophageal Doppler monitoring predict fluid challenge responsiveness. 2005:494
55. Devanand A. Clinical Trial: Continuous hemodynamic monitoring by esophageal Doppler in severe sepsis. 2005
56. Dearlove OR, Ram AD, Natsagdoiy S, Humphrey G. Hyponatraemia after postoperative fluid management in children. *Br J Anaesth* 2006; **97(6)**:897-898
57. Department of Health. Enhanced recovery for elective surgery. Quality and Productivity 2010; **ID:1031**
58. Department of Health. The NHS Quality, Innovation, Productivity and Prevention Challenge: an introduction for clinicians. *QUIPP Report* 2010: March
59. Derichard A, Robin E, Tavernier B, Costecaldle M, Fleyfel M, Onimus J, Lebuffe G, Chambon JP, Vallet B. Automated pulse pressure and stroke volume variations from radial artery: evaluation during major abdominal surgery. *Br J Anaesth* 2009; **103(5)**:678:684
60. Dexter SPL, Vucevic M, Gibson J, McMahon MJ. Hemodynamic consequences of high- and low-pressure capnoperitoneum during laparoscopic cholecystectomy. *Surg Endosc* 1999; **13**:376-381
61. Diaper J, Ellenberger C, Villiger Y, Robert J, Tschopp JM, Licker M. Transoesophageal Doppler monitoring for fluid and hemodynamic treatment during lung surgery. *J Clin Monit Comput* 2008; **22**:367–374

62. Dickson RE, Robertson EA, Krukowski ZH. Haemodynamic changes during laparoscopic anterior fundoplication measured by trans-oesophageal Doppler ultrasound. *Anaesthesia* 2000; **55(3)**:280-284
63. DiCorte CJ, Latham P, Greilich PE, Cooley MV, Grayburn PA, Jessen ME. Esophageal Doppler monitor determinations of cardiac output and preload during cardiac operations. *Ann Thorac Surg* 2000; **69**:1782-1786
64. DiCorte CJ, Latham P, Greilich PE, Cooley MV, Grayburn PA, Jessen ME. Pulmonary artery catheter vs esophageal Doppler monitoring: Measurement of cardiac output and left ventricular filling during cardiac surgery. *Anesth & Analg* 1999; SCA37
65. Djaiani G, Hardy I. Perioperative use of the oesophageal Doppler probe (ODM II) on a patient scheduled for transmyocardial revascularization. *Br J Anaesth* 1997; **78**:760-761
66. Dodd TEL, McCormick RN, Dorman F, Green R, Bromilow J. Using the Oesophageal Doppler Monitor in Elective Colorectal Surgery. Is it worth it. *Poole Hospital NHS Trust, Poster* 2004: September
67. Donaldson AJ, Thomson HE, Harper NJN, Jepegnanam C. Haemodynamic changes occurring at the time of cement implantation during hip hemiarthroplasty. *Poster* 2008 June
68. Drage S, Boyd O. Peri-operative goal-directed haemodynamic therapy - do it, bin it, or finally investigate it properly? *Crit Care* 2007; **11(5)**:170
69. Eachempati SR, Young C, Alexander J, Cirisano FD, Rodriguez GC, Reed RL II. The clinical use of an esophageal Doppler monitor for hemodynamic monitoring in sepsis. *The Journal of Clinical Monitoring and Computing* 1999; **5**:3-4:223-225
70. Elliott S, Savill P, Eckersall S. Cardiovascular changes during laparoscopic cholecystectomy: a study using transoesophageal Doppler monitoring. *Eur J Anaesthesiol* 1988; **15(1)**:50-55
71. English JD, Moppett IK. Feasibility of performing transoesophageal Doppler measurements in awake, unpremeditated, healthy volunteers. University of Nottingham, Poster 2005
72. Esdaile BA, Raobaikady R. Survey of Cardiac Output Monitoring in Intensive Care Units in England and Wales. 2005
73. Esophageal Doppler Ultrasound-Based Cardiac Output Monitoring for Real-Time Therapeutic Management of Hospitalized Patients – A Review. *Agency For Health Research and Quality (AHRQ)* January 16, 2007
74. Farrar D, Grocott MPW, Hamilton MA, Mythen MG. Optimal Care of the Higher Risk Surgical Patient. 2000: October
75. Fearon KCH, Ljungqvist O, Von Meyenfeldt M, Revhaug A, Dejong CHC, Lasses K, Nygren J, Hausel J, Soop M, Andersen J, Kehlet. Enhanced recovery after surgery: A consensus review of clinical care for patients undergoing colonic resection. *Clinical Nutrition* 2005; **24**:466-477
76. Feissel M, Michard F, Mangin I, Ruyer O, Faller JP, Teboul JL. Respiratory changes in aortic blood velocity as an indicator of fluid responsiveness in ventilated patients with septic shock. *Chest* 2001; **119**:867-873

77. Feldman LS, Anidjar M, Metrakos P, Stanbridge D, Fried GM, Carli F. Optimization of cardiac preload during laparoscopic donor nephrectomy: a preliminary study of central venous pressure vs esophageal Doppler monitoring. *Surg Endosc* 2004; **18**:412-416
78. Finan PJ, Campbell S, Verma R, MacFie J, Gatt M, Parker MC, Bhardwaj R, Hall NR. The Management of Malignant Large Bowel Obstruction: ACPGBI Position Statement. *Col Dis* 2007 **9(4)**:1-17
79. Fisher DC, Sahn DJ, Friedman MJ, Larson D, Lilliam MS, Valdes-Cruz M, Horowitz S Goldberg SJ, Allen HD. The mitral valve orifice method for noninvasive two-dimensional echo Doppler determinations of cardiac output. *Circ* 1983; **67(4)**:872-877
80. Funk DJ, Moretti EW, Gan TJ. Minimally Invasive Cardiac Output Monitoring in the Perioperative Setting. *Anesth & Analg* 2009; **108(3)**:887-897
81. Galante D. Current Trends in Cardiac Output Monitoring in Intensive Care Units: An International Survey. *Poster SIAARTI: 2009*
82. Galante D, Pellico G, Meola S, Caso A, de Capraris A, Milillo R, Mirabile C, Oliviera M, Cinnella G, Dambrosio M. Hemodynamic effects of levobupivacaine after pediatric caudal anesthesia evaluated by transesophageal Doppler. *Pediatric Anesthesia* 2008; **18**:1066-1074
83. Gan TJ, Arrowsmith JE. The oesophageal Doppler monitor. *BMJ* 1997; 315:893-894
84. Gan TJ, Horacek A, Maroof M, El-Moalem H, Bell E, Kucmeroski D, Malaisoodumperumal T, Glass PSA. Intraoperative volume expansion guided by esophageal Doppler improved postoperative outcome and shorted hospital stay. *Anesth & Analg* 1999; **88**:S1-424
85. Gan TJ, Soppitt A, Maroof M, El-Moalem H, Robertson KM, Moretti E, Dwane P, Glass PSA. Goal-directed intraoperative fluid administration reduces length of hospital stay after major surgery. *Anesthesiology* 2002; **97**:820-826
86. Gan TJ, Wakeling H, Hardman D, Booth JV, Chitester C, Ray J, Mythen M, Glass PSA. Intraoperative volume expansion guided by esophageal Doppler reduces the incidence of gastric mucosal hypoperfusion and may be associated with improved outcome following major surgery. *Anesthesiology* 1997 V87, 3A, Sep
87. Gan TJ. Intraoperative fluid management and choice of fluids. 2000; 122:1-7
88. Gan TJ. The esophageal Doppler as an alternative to the pulmonary artery catheter. *Crit Care* 2000; **6**:214-221
89. Giglio MT, Marucci M, Brienze N. Goal-directed haemodynamic therapy and gastrointestinal complications in major surgery: a meta-analysis of randomized controlled trials. *Br J Anaesth* 2009; **103**:637-646
90. Goddard NG, Menadue, LT, Wakeling HG. A case for routine oesophageal Doppler fluid monitoring during major surgery becoming a standard of care. *Br J Anaesth* 2007; **99(4)**:599
91. Green D, Paklet L. Latest developments in peri-operative monitoring of the high-risk major surgery patients. *International Journal of Surgery* 2010; **8(2)**:90-99

92. Green DW. Comparison of cardiac outputs during major surgery using the Deltex CardioQ oesophageal Doppler monitor and the Novamatrix-Respironics NICO: a prospective observational study. *Int J Surg* 2007; **5(3)**:176-182
93. Green R, Craig J, Kyle B, Jonas M. A survey of cardiac output monitoring in intensive care units. *Crit Care* 2007; **11(2)**:P301
94. Gresham T. Purchasing decisions to support a change in intraoperative haemodynamic monitoring are evidence-based and could save billions. *Hospital Decisions* 2004; **1**:184-185
95. Grocott MPW, Gan TJ. Hemodynamic "Optimization" Goal Is Improved Outcome. *APSF Newsletter* 2001; **16(2)**:31-33
96. Grocott MPW, Hamilton MA, Bennett ED, Harrison D, Rowan K. Perioperative increase in global blood flow to explicit defined goals and outcomes following surgery (Protocol). *Cochrane Database of Systematic Reviews* 2009; Issue 4
97. Grocott MPW, Mythen MG, Gan TJ. Perioperative fluid management and clinical outcomes in adults. *Anesth & Analg* 2005; **100**:1093-1106
98. Grocott MPW. Improving outcomes after surgery. *BMJ* 2000; 339:b5173
99. Grocott MPW. Monitoring surgical outcomes: How and why? *Current Anaesthesia & Critical Care* 2010; **21**: 29-136
100. Grover M. Enhanced recovery after colorectal surgery. *Current Anaesthesia & Critical Care* 2010; **21**:121-124
101. Gunn S, Harrigan P, Pinsky MR.. Ability of arterial pulse contour and esophageal pulsed Doppler measures to estimate rapid changes in left ventricular output. 2003
102. Guzzetta NA, Ramsay JG, Bailey JM, Palmer-Steele C. Clinical Evaluation of the esophageal Doppler Monitor for continuous cardiac output monitoring. *Anesth & Analg* 1998 **86**: SCA1-SCA124
103. Hack H. Use of the Esophageal Doppler Machine to help guide the intraoperative management of two children with pheochromocytoma. *Ped Anesth* 2006; **16**:867:876
104. Hadian M, Angus DC. Protocolized resuscitation with esophageal Doppler monitoring may improve outcome in post-cardiac surgery patients. *Critical Care* 2005; **9**:E7
105. Hamilton M, Grocott PW, Mythen M, Bennett ED. Does oesophageal Doppler guided goal directed therapy reduce surgical mortality and length of stay? *Intensive Care Med* 2006; **32(1)**:0442
106. Hamilton MA. Perioperative fluid management: Progress despite lingering controversies. *Cleveland Clinical Journal of Medicine* 2009; **76(4)**: S28-S31
107. Hamilton-Davies C, Mythen MG, Salmon JB, Jacobson D, Shukla A, Webb AR. Comparison of commonly used clinical indicators of hypovolaemia with gastrointestinal tonometry. *Intensive Care Med* 1997; **23**:276-281

108. Hardman J, Carlson GL. Evidence-based perioperative care is lost in translation. *Br J Surg* 2008; **95**:807:808
109. Harvey S, Stevens K, Harrison D, Young D, Brampton W, McCabe C, Singer M, Rowan K. An evaluation of the clinical and cost-effectiveness of pulmonary artery catheters in patient management in intensive care: a systematic review and a randomised controlled trial. *Health Technol Assess* 2006; **10(29)**:1-150
110. Hawkes N. Surgical breakthrough could save NHS up to £500m a year. *The Times* 2006 September
111. Haxby EJ, Gray MR, Rodriguez C, Nott D, Springall M, Mythen M. Assessment of cardiovascular changes during laparoscopic hernia repair using oesophageal Doppler. *Br J Anaesth* 1997; **78**:515-519
112. Hersey SL, Taylor M, Brock J. Transesophageal Doppler measurement of cardiac output in children. 2000 A-1312
113. Horgan A. Safety First. *Health Director* 2006 December
114. Hullett B Neville Gibbs N, Weightman W, Thackray M, Newman M. A comparison of CardioQ and Thermodilution cardiac output during off-pump coronary artery surgery. *J Cardiothorac Vasc Anesth* 2003; **17(6)**: 728-732
115. Improving surgery outcomes. *Clinical Services Journal* 2007; 90-91
116. Iregui MG, Prentice D, Sherman G, Schallom L, Sona C, Kollef MH. Physicians' estimates of cardiac index and intravascular volume based on clinical assessment versus transesophageal Doppler measurements obtained by critical care nurses. *Am J Crit Care* 2003; **12(4)**:336-342
117. Jhanj S, Dawson J, Pearse RM. Cardiac output monitoring: basic science and clinical application. *Anaesthesia* 2008; **63**:172-181
118. Jonas M, Fennel J, Brudney CS. Haemodynamic optimisation of the surgical patient revisited. *Anesthesia International* 2008; Vol 2 No 1
119. Jorgensen CC, Bundgaard-Nielsen M, Skovgaard T, Secher NH, Kehlet H. Measurement of Cardiac Output After Cardiac Surgery by a New Transesophageal Doppler Device. *Acta Anaesthesiol Scand* 2008; **53(1)**:34-38
120. Joshi GP. Less is not more: a lack of evidence for intraoperative fluid restriction improving outcome after major elective gastrointestinal surgery. *Anesth & Analg* 2006;**102**:965-976
121. Kauffman K. Newer trends in monitoring: The esophageal Doppler monitor. *AANA Journal* 2000; **68(5)**:421-428
122. Kehlet H, Wilmore DW. Evidence-Based Surgical Care and the Evolution of Fast-Track Surgery. *Ann Surg* 2008; **248(2)**:189-198
123. Kehlet H. Goal-directed Perioperative Fluid Management. *Anesthesiology* 2009; **110**:453-455
124. Kennedy R, Smith T. Unrecognised benefit of oesophageal Doppler monitoring. *Anaesthesia* 2009; **64**:1030

125. Hofer CK, Cecconi M, Marx G, Della Rocca G. Minimally invasive haemodynamic monitoring. *Eur J Anaesthesiol* 2009; **26(12)**: 996-1002
126. Kincaid EH, Fly MG, Chang MC. Noninvasive measurements of preload using esophageal Doppler are superior to pressure-based estimates in critically injured patients. *Poster Crit Care Med* 1999; 27(1):A111
127. King SL, Lim ST. The use of the oesophageal Doppler monitor in the intensive care unit. *Crit Care Res* 2004; **6**:113-122
128. Klotz KF, Klingsiek S, Singer M, Wenk H, Eleftheriadis S, Juppe H, Schmucker P. Continuous measurement of cardiac output during aortic cross-clamping by the oesophageal Doppler monitor ODM I. *Br J Anaes* 1995; **74**:655-660
129. Kodakat SK, Delaguila M, Trivedi U, Kong R. Oesophageal Doppler monitoring of descending aortic blood flow velocity during pump-off coronary artery bypass surgery. *Crit Care* 2001; **5(4)**:1-8
130. Kong RS. Esophageal Doppler monitoring in off-pump cardiac surgery. *J Cardiothorac Vasc Anesth* 2004; 18(4):539-40; author reply 540-1.
131. Kuper M. Anaesthetics at the heart of Enhanced Recovery. *Current Anaesthesia & Critical Care* 2010; **21**:107
132. Kuper M. Continuous cardiac output monitoring. *Current Anaesthesia & Critical Care* 2004; **15**:367-377
133. KwangMin K, InSuk K, HyunMook C, TaeHyung H. Comparison of cardiac outputs of major burn patients undergoing extensive early escharectomy: esophageal Doppler monitor versus thermodilution pulmonary artery catheter. *J Trauma* 2004; **57(5)**:1013-1017
134. Lafanechère A, Pène F, Goulenok C, Delahaye A, Mallet V, Choukroun G, Chiche JD, Mira JP, Cariou A. Changes in aortic blood flow induced by passive leg raising predict fluid responsiveness in critically ill patients. *Crit Care* 2006; **10**:5
135. Lahner D, Fleischmann E, Hetz H, Pestel G. Pulse pressure variation and stroke volume variation: from flying blind to flying right. *Br J Anaesth* 2009; **103(6)**:896-904
136. Lahner D, Kabon B, Marschalek C, Chiari A, Pester G, Kaider A, Fleischmann E, Hetz H. Evaluation of stroke volume variation obtained by arterial pulse contour analysis to predict fluid responsiveness intraoperatively. *Br J Anaesth* 2009; **103(3)**:346-351
137. Larousse E, Asehnoune K, Dartayet B, Albaladejo P, Dubousset AM, Gauthier F, Benhamou D. The Hemodynamic Effects of Pediatric Caudal Anesthesia Assessed by Esophageal Doppler. *Anaesth & Anal* 2002; **94**:1165-1168
138. Lassen K, Soop M, Nygren J, Cox PBW, O'Hendy P, Spies C, von Meyenfeldt MF, Fearon KCH, Revhaug A, Norderval S, Lyungqvist O, Lobo DN, Dejong CHC. Consensus Review of Optimal Perioperative Care in Colorectal Surgery Enhanced Recovery After Surgery (ERAS) Group Recommendations. *Arch Surg* 2009; **144(10)**:961-969
139. Lassen K. Intravenous fluid therapy. *Br J Surg* 2009; **96**:123–124

140. Latham P, Greilich PE, DiCorte CJ, Cooley MV, Grayburn PA, Jessen ME. Esophageal Doppler monitoring (EDM): the effect of preload, afterload, and contractility on peak velocity. *Ann Thorac Surg* 1998
141. Laupland KB, Bands CJ. Utility of esophageal Doppler as a minimally invasive hemodynamic monitor: a review. *Can J Anesth* 2002; **49(4)**:393-401
142. Lee JH, Kim JT, Yoon SZ, Lim YJ, Jeon Y, Bahk JH, Kim CS. Evaluation of corrected flow time in oesophageal Doppler as a predictor of fluid responsiveness. *Br J Anaesth* 2007; **99(3)**:343-348
143. Lees N, Hamilton M, Rhodes A. Clinical review: Goal-directed therapy in high risk surgical patients. *Crit Care* 2009; **13(5)**:231
144. Lefrant JY, Aya G, de La Coussaye JE, Bassoul B, Auffray JP, Eledjam JJ. Training is required to improve the reliability of esophageal Doppler to measure cardiac output in critically ill patients. *Intensive Care Med* 1998; **24**:347-352
145. Lefrant JY, Aya G, de La Coussaye JE, Bassoul B, Auffray JP, Eledjam JJ. Comparison of cardiac output measured by esophageal Doppler vs Thermodilution. *Intensive Care Med* 1992; **18(2)**:S177-P238
146. Levy BF, Scott MJP, Fawcett WJ, Rockall TA. 23-Hour-Stay Laparoscopic Colectomy. *Diseases of the Colon & Rectum* 2009; **52(7)**:1239-1243
147. Lowe GC, Chamberlain BM, Philpot EJ, Willshire RJ. Oesophageal Doppler Monitor (ODM) guided individualised goal directed fluid management (iGDFM) in surgery - a technical review. 2009; 1-8
148. MacKay G, Fearon K, McConnachie A, Serpell MG, Molloy RG, O'Dwyer PJ. Effect of postoperative intravenous fluid and sodium restriction on patient recovery after elective colorectal surgery: an observer blinded randomised trial. 2006
149. Mackay M, Saberi D, Caudwell E, McGloin H, Brady A, Singer M. Nurse-led, protocol-driven haemodynamic management in the first four hours after cardiac surgery shortens hospital stay. 2003
150. Mackay ME, Saberi D, Caudwell L, McGoin H, Brady T, Singer M. Nurse-led haemodynamic management hospital stay in cardiac surgery patients. 2005:045
151. Madan AK, UyBarreta VV, Aliabadi-Wahle S, Jespersen R, Hartz R, Flint LM, Steinberg SM. Esophageal Doppler ultrasound monitor versus Pulmonary Artery Catheter in the hemodynamic management of critically ill surgical patients. *The Journal of Trauma Injury, Infection & Critical Care* 1999; **46(4)**:607-611
152. Mann C, Boccara G, Pouzeratte Y, Navarro F, Domergue J, Colson P. Hemodynamic monitoring using esophageal Doppler ultrasonography during laparoscopic cholecystectomy. *Can J Anesth* 1999; **46(1)**:15-20.
153. Marik PE. Pulmonary Artery Catheterization and esophageal Doppler monitoring in the ICU. *Chest* 1999; **116**:1085-1091

154. Mark JB, Steinbrook RA, Gugino LD, Maddi R, Hartwell B, Shemin R, DiSesa V, Rida WN. Continuous non-invasive monitoring of cardiac output with esophageal Doppler ultrasound during cardiac surgery. *Anesth & Analg* 1986; **65**:1013-1020
155. Marshall A, Ellis L. Unique nurse service monitors patients through the nose; The UK's first nurse-led nasal Doppler service has been set up in Essex by two nurse specialists in critical care. *Nursing Times* 2008; September 22
156. Matthews PC. Cardiac output measurement using the TECO 1 oesophageal Doppler monitor. A comparison with thermodilution. *International Journal of Intensive Care* 1998 Autumn
157. Mayor S. New approach to surgical care aims to improve recovery and reduced length of hospital stay. *BMJ* 2007; **334**:816-817
158. McDonald S, Fernando R, Ashpole K, Columb M. Maternal cardiac output changes after crystalloid or colloid cohydration following spinal anaesthesia for elective caesarean section. *International Journal of Obstetric Anesthesia* 2007; Pages S1-S54: 008
159. McKendry M, McGloin H, Saberi D, Caudwell L, Brady AR, Singer M. Randomised controlled trial assessing the impact of a nurse delivered, flow monitored protocol for optimisation of circulatory status after cardiac surgery. *Br Med J* 2004; **329**:258-262
160. Meyer JP, Anand KK, Hancock TW, Hooker G, Ramsay MAE. Pilot study examining the role of the esophageal Doppler monitoring. *ASA Meeting Abstract* 2000 A-336
161. Mohan UR, Britto J, Habibi P, Munter C, Nadel S. Noninvasive measurement of cardiac output in critically ill children. *Pediatr Cardiol* 2002; **23(1)**:58-61
162. Monnet X, Chemla D, Osman D, Anguel N, Richard C, Pinsky MR, Teboul JL. Measuring aortic diameter improves accuracy of esophageal Doppler in assessing fluid responsiveness. *Crit Care Med* 2007; **35(2)**:477-482
163. Monsel A, Salvat-Toussaint A, Durand P, Haas V, Baujard C, Rouleau P, El Aouadi S, Benhamou D, Asehnoune K. The transesophageal Doppler and hemodynamic effects of epidural anesthesia in infants anesthetized with Sevoflurane and Sufentanil. *Anesth & Analg* 2007; **105(7)**:46-50
164. Moppett IK, Malik M, Baxendale BR. Trans-esophageal Doppler measurements are tolerable and reproducible in awake, ambulatory volunteers. *State of the Art Meeting* 2001
165. Mowatt G, Houston G, Hernandez R, de Verteuill R, Fraser C, Cuthbertson B and Vale L. Systematic review of the clinical effectiveness and cost-effectiveness of oesophageal Doppler monitoring in critically ill and high-risk patients. *Health Technology Assessment* 2009; Vol 13: No 7
166. Muhktar AM, Obayah G. Esophageal Doppler Monitor: A New Tool in Monitoring Video Assisted Thoracoscopic Surgery for Ligation of Patent Ductus Arteriosus. *Anesth & Analg* 2008; **107(1)**: 346-347
167. Murdoch IA, Marsh MJ, Tibby SM, McLuckie A. Continuous haemodynamic monitoring in children: use of transesophageal Doppler. *Acta Paediatr* 1995; **84**:761-764

168. Mythen MG, Webb AR. Intra-operative gut mucosal hypoperfusion is associated with increased post-operative complications and cost. *Intensive Care Med* 1994; **20**:99-104
169. Mythen MG, Webb AR. Perioperative plasma volume expansion reduces the incidence of gut mucosal hypoperfusion during cardiac surgery. *Arch Surg* 1995; **130**:423-429
170. Mythen MG. Postoperative gastrointestinal tract dysfunction: An overview of causes and management strategies. *Cleveland Clinic Journal of Medicine* 2009; **76(4)**:S66-S71
171. Nakatsuka M, Fisher RA, Ham JM, Seaman DS, Posner MP. Validation of the esophageal Doppler cardiac function monitor with the standard thermodilution method during liver transplantation. *Anesth & Analg* 1997; **S4**: SCA1-SCA127
172. NHS Enhanced Recovery Partnership Programme. Delivering enhanced recovery Helping patients to get better soon after surgery. 2010: 300977; March
173. NHS Purchasing and Supply Agency, Centre for Evidence-based Purchasing, Evidence Review for Oesophageal Doppler monitoring in patients undergoing high-risk surgery and in critically ill patients. 2008; CEP 08012
174. Nightingale T, Aldersley H, Manji M, Murphy N, Rosser DM. Provision of critical care in larger units improves cost effectiveness of nurse staffing. 2005:523
175. Nishimura RA, Callahan MJ, Schaff HV, Ilstrup DM, Miller F, Tajik AJ. Noninvasive measurement of cardiac output by continuous-wave Doppler echocardiography: Initial experience and review of literature. *Mayo Clin Proc* 1984; **59**:484-489
176. Noblett SE, Horgan AF. Fluid Optimisation in Laparoscopic Colorectal Resection: Is it Beneficial. *Colorectal Disease* 2007; **9(1)**:16
177. Noblett SE, Snowden CP, Shenton BK, Horgan AF. Randomized clinical trial assessing the effect of Doppler-optimized fluid management on outcome after elective colorectal resection. *Br J Surg* 2006; **93**:1069-1076
178. Noblett SE, Snowden CP, Shenton BK, Horgan AF. Randomized clinical trial assessing the effect of Doppler-optimized fluid management on outcome after elective colorectal resection. *Colorectal Disease* 2005; 7 (Suppl 1):1-42
179. Odenstedt H, Aneman A, Svensson M, Oi Y, Stenqvist O, Lundin S. Descending aortic blood flow and cardiac output: A clinical and experimental study of continuous oesophageal echo-Doppler flowmetry. *Acta Anaesthesiol Scand* 2001; 45:180-187
180. Otero R, Garcia AJ. Clinical review: New technologies - venturing out of the intensive care unit. *Crit Care* 2005; **9(3)**: 296-302
181. Parker M. Recovery times slashed by three weeks. *Health Director* 2008:February
182. Parviainen I, Takala J, Jakob SM. Does fluid loading influence measurements of intestinal permeability? *Crit Care* 2005 **9**:R234-R237

183. Patel M, Singer M. The optimal time for measuring the cardiorespiratory effects of positive end-expiratory pressure. *Chest* 1993; **104**:139-141
184. Patel VM, Nikolopoulos I, Ellwood M, George M, Carapeti E, Williams A. Oesophageal Doppler guided fluid optimisation in colorectal surgery. Poster 2008
185. Payen DM. Oesophageal Doppler monitoring: history, physical principles and clinical applications. *International Journal of Intensive Care* 1997 Autumn
186. Penny JA, Anthony J, Shennan AH, De Swiet M, Singer M. A comparison of hemodynamic data derived by pulmonary artery flotation catheter and the esophageal Doppler monitor in preeclampsia. *Am J Obstet Gynecol* 2000; **183(3)**:658-661
187. Phan T, Ismail H, Heriot A, Ho K, Improving Perioperative Outcomes: Fluid Optimization with the Esophageal Doppler Monitor, a Metaanalysis and Review. *J Am Coll Surg* 2008; **207(6)**:935-941
188. Pillair P. The Influence of oesophageal Doppler monitoring on fluid administration and outcome in cystectomy. *BJU International*. 2008; **101(5)**: 1-16
189. Pinsky M. Haemodynamic monitoring in shock and implications for management. 2006
190. Pinsky M. Haemodynamic monitoring in shock and implications for management. 8th International Consensus Conference Paris, April 27-28, 2006
191. Poeze M, Greve JWM, Ramsay G. Goal-oriented haemodynamic therapy: a plea for a closer look at using peri-operative oxygen transport optimisation. *Intensive Care Med* 2000; **26**:635-637
192. Poeze M, Greve JWM, Ramsay G. Meta-analysis of hemodynamic optimization: relationship to methodological quality. *Crit Care* 2005; **9(6)**: R771-779
193. Poeze M, Ramsay G, Greve JW, Singer M. Prediction of postoperative cardiac surgical morbidity and organ failure within 4 hours of intensive care unit admission using esophageal Doppler ultrasonography. *Crit Care Med* 1999; **27(7)**:1288-1294
194. Powell-Tuck J, Gosling P, Lobo DN, Allison SP, Carlson GL, Gore M, Lewington AJ, Pearse RM, Mythen MG. British Consensus Guidelines on Intravenous Fluid Therapy for Adult Surgical Patients. *Giftasup Guidelines* 2008 Recommendation 13
195. Prentice D. Safety and efficacy of nurse-inserted transesophageal Doppler probe. *Am J Crit Care* 2003 May
196. Price J, Sear J, Venn R. Perioperative fluid volume optimization following proximal femoral fracture. *Cochrane Database Syst Rev* 2002; (1)CD003004
197. Rahbari N, Zimmermann JB, Schmidt T, Koch M, Weigand MA, Weitz J. Meta-analysis of standard, restrictive and supplemental fluid administration in colorectal surgery. *Br J Surg* 2000; **96**:331-341
198. Raux O, Rochette A, Morau E, Dadure C, Vergnes C, Capdevila X. The Effects of Spread of Block and Adrenaline on Cardiac Output After Epidural Anesthesia in Young Children: A Randomized, Double-Blind, Prospective Study. *Anesth & Analg* 2004; **98**:948-55

199. Roche AM, Gan TJ. Peri-operative goal-directed fluid therapy - perceived or real benefit? *US Surgery* 2007; 10-12
200. Roche AM, Miller TE, Gan TJ. Goal-directed fluid management with trans-oesophageal Doppler. *Best Practice & Research Clinical Anaesthesiology* 2009; **23**:327-334
201. Roche AM, Miller TE. Goal-directed or goal-misdirected - how should we interpret the literature? *Crit Care* 2010; **14(2)**:129
202. Rodriguez RM, Berumen KA, Black CS, Riseer RC, Layman L. Cardiac output measurement with an esophageal Doppler monitor in critically ill emergency department. *Academic Emergency Med* 1998; **5:510**, no 427
203. Roeck M, Jakob SM, Boehlen T, Brander L, Knuesel R, Takala J. Change in stroke volume in response to fluid challenge: assessment using esophageal Doppler. *Intensive Care Med* 2003; **29(10)**:1729-1735
204. Rowlands H, Bagshaw O, Duncan H. Can clinicians estimate cardiac output and systemic vascular resistance compared to trans-oesophageal Doppler in Ventilated Children? Poster, Birmingham Children's Hospital, UK 2007
205. Rowlands H, Bagshaw O, Duncan H. Does trans-oesophageal Doppler cardiac output measurement change clinical management strategy? 2007 Poster Birmingham Children's Hospital, UK
206. Rubin B, Atlas G. Use of the Esophageal Doppler Monitor in a Patient with a Ruptured Abdominal Aortic Aneurysm. *Poster UMDNJ* 2009
207. Saberi, D Caudwell L, McGloin H, Singer M. Post-operative oesophageal Doppler optimisation: The cardiac patient. 2000
208. Schleicher GK, Bowley DM, Degiannis E, Boffard KD. Critical care in South Africa after major surgery. *Care of the Critically Ill* 2003; **19(4)**:112-118
209. Schober P, Loer SA, Schwarte LA. Perioperative Hemodynamic Monitoring with Transesophageal Doppler Technology. *Anesth & Analg* 2009; **109(2)**:340-353
210. Schober P, Meuleman EJH, Boer C, Loer SA, Schwarte LA. Transurethral Resection Syndrome Detected and Managed Using Transesophageal Doppler. *Anesth & Analg* 2008; **107(3)**: 921-925
211. Schubert S, Schmitz T, Weiss M, Nagdyman N, Huebler M, Alexi-Meskishvili V, Berger F, Stiller B. Continuous, non-invasive techniques to determine cardiac output in children after cardiac surgery: evaluation of transesophageal Doppler and electric velocimetry. *J Clin Monit Comput* 2008; **22**:299-307
212. Senagore AJ, Emery T, Luchtefeld M, Kim D, Dujovny N, Hoedema R. Fluid Management for Laparoscopic Colectomy: A Prospective, Randomized Assessment of Goal-Directed Administration of Balanced Salt Solution or Hetastarch Coupled with an Enhanced Recovery Program. *Dis Colon Rectum* 2009; **52(12)**:1935-1940
213. Seoudi HM, Perkal MF, Hanrahan A, Angood PB. The esophageal Doppler monitor in mechanically ventilated surgical patients: Does it work? *The Journal of Trauma, Injury, Infection, and Critical Care* 2003; **55(4)**:720-726

214. Sharma J, Bhise M, Singh A, Mehta Y, Trehan N. Hemodynamic measurements after cardiac surgery: transesophageal Doppler versus pulmonary artery catheter. *J Cardiothorac Vasc Anesth* 2005; **19(6)**:746-750
215. Shaw AD, Weavind LM, Parmley L. Comparison of thermodilution, esophageal Doppler and transesophageal echocardiography data in the hemodynamic assessment of critically ill cancer patients. *Crit Care Med* 2000; 28:12, 159/M65
216. Shi C, Morse LS, Downing LK, Chi L, Jessen ME. Optimizing intraoperative volume management during coronary bypass surgery. *American Society of Anesthesiologists* 2000 A-347
217. Simini B. Pulmonary artery catheters in intensive care. *The Lancet* 2005; **366**:435-436
218. Sinclair S, James S, Singer M. Intraoperative intravascular volume optimisation and length of hospital stay after repair of proximal femoral fracture: randomised controlled trial. *Br Med J* 1997; **315**:909-912
219. Singer M, Bennett ED. Noninvasive optimization of left ventricular filling using esophageal Doppler. *Crit Care Med* 1991; **19(9)**:1132-1137
220. Singer M, Bennett ED. Optimisation of positive end expiratory pressure for maximal delivery of oxygen to tissues using oesophageal Doppler ultrasonography. *Br Med J* 1989; **298**:1350-1353
221. Singer M, Bennett ED. Pitfalls of pulmonary artery catheterization highlighted by Doppler ultrasound. *Crit Care Med* 1989; **17(10)**:1060-1061
222. Singer M, Clarke J, Bennett ED. Continuous hemodynamic monitoring by esophageal Doppler. *Crit Care Med* 1989; **17(5)**:447-452
223. Singer M, Payen DM, Webb AR. Haemodynamic monitoring in surgical and intensive care, haemodynamic management: are we doing it right? *International Proceedings Journal* 1994 Vol 1, No 1
224. Singer M, Vermatt J, Hall G, Latter G, Patel M. Hemodynamic effects of manual hyperinflation in critically ill mechanically ventilated patients. *Chest* 1994; **106**:1182-1087
225. Singer M. Esophageal Doppler monitoring of aortic blood flow: beat-by-beat cardiac output monitoring. *Int Anesthesiol Clin* 1993; **31(3)**:99-125
226. Singer M. Better monitoring = better management: Improved monitoring leads to more appropriate interventions. *International Journal of Intensive Care* 1996:1
227. Singer M. Esophageal Doppler monitoring of aortic blood flow: beat-by-beat cardiac output monitoring. *Int Anesthesiol Clin* 1993; **31(3)**:99-125
228. Singer M. Oesophageal Doppler. *Curr Opin Crit Care* 2009; **15**:244-248
229. Singer M. The FTc is not an accurate marker of left ventricular preload. *Intensive Care Med* 2006; **32(9)**:1456-1457
230. Singer M. What's in a beat? *Intensive Care Med* 2003; **29(10)**:1617-1620

231. Skowno JJ, Broadhead M. Cardiac output measurement in pediatric anesthesia. *Paed Anesth* 2008; **18**:1019-1028
232. Sorohan J, Gilber HC, Atwell D, Sladen RN, Votapka TV, O'Connor BO, Mythen MG. Dual-Center validation of an esophageal Doppler continuous cardiac output monitor. *Crit Care Med* 1997
233. Spahn DR, Chassot PG. Fluid restriction for cardiac patients during major noncardiac surgery should be replaced by goal-directed intravascular fluid administration. *Anesth & Analg* 2006; **102**:344-346
234. Stack CJ, Westhead PJ, Fabb PC, Wakeling HG. Useful ectopics. *Br J Anaesth* 2006; **97(5)**:748
235. Stewart WJ, Dicola VC, Harthorne JW, Gillam LD, Weyman AE. Doppler ultrasound measurement of cardiac output in patients with physiologic pacemakers. Effects of left ventricular function and retrograde ventriculoatrial conduction. *Am J Cardiol* 1984; **1:54(3)**:308-312
236. Stone MD, Wilson RJT, Cross J, Williams BT. Effect of adding dopexamine to intraoperative volume expansion in patients undergoing major elective abdominal surgery. *Br J Anaesth* 2003; **91(5)**:619-624
237. Stuart-Smith K. Modern haemodynamic monitoring: out with the old. *Anaesthesia Product News* 2006 Winter
238. Szaflarski NL, Slaughter RE. Technology assessment in critical care: understanding statistical analyses used to assess agreement between methods of clinical measurement. *Am J Crit Care* 1996; **5(3)**:207-216
239. Takala J. Highs and lows in high-risk surgery: the controversy of goal-directed haemodynamic management. *Crit Care* 2005; **9**:642-644
240. Tibby SM, Hatherhill M, Durward A, Murdoch IA. Are transesophageal Doppler parameters a reliable guide to paediatric haemodynamic status and fluid management? *Intensive Care Med* 2001; **27**:201-205
241. Tibby SM, Hatherill M, Murdoch IA. Use of transesophageal Doppler ultrasonography in ventilated pediatric patients: Derivation of cardiac output. *Crit Care Med* 2000; **28(6)**:2045-2050,
242. Tibby SM, Murdoch IA. Measurement of cardiac output and tissue perfusion. *Curr Opin Pediatr* 2002; **14**:303-309
243. Tibby SM, Murdoch IA. Monitoring cardiac function in intensive care. *Arch Dis Child* 2003; **88**:46-52
244. Tote SP, Grounds RM. Performing perioperative optimization of the high-risk surgical patient. *Br J Anaesth* 2006; **97(1)**:4-11
245. Turner M. Doppler-based hemodynamic monitoring: a minimally invasive alternative. *ACCN* 2003; **14(2)**:220-231
246. Urrunaga, JJ, Rivers EP, Karriem-Norwood VA, Mullen MT, Nguyen HB. Hemodynamic evaluation of the critically ill in the emergency department: A comparison of clinical impression versus transesophageal Doppler measurement. *Crit Care Med* 1999; **27(12)** Supplement: A89, December
247. Usher SM, Walker DA, Mythen MG. Doppler cardiac output monitoring: a tool for all physicians. *Br J Hosp Med* 2007; **68(3)**:126-130

248. Vallee F, Fourcade O, De Soyres O, Angles O, Sanchez-Verlaan P, Pillard F, Smail N, Olivier M, Genestal M, Samii. Stroke output variations calculated by esophageal Doppler is a reliable predictor of fluid response. *Intensive Care Med* 2005; **31**:1388-1393
249. Valtier B, Cholley BP, Belot JP, de la Coussaye JE, Mateo J, Payen DM. Noninvasive monitoring of cardiac output in critically ill patients using transesophageal Doppler. *Am J Respir Crit Care Med* 1998; **158**:77-83
250. Van Den Berg R, Van Den Heuvel SAS, Boschker M, Scheffer GJ. Fluid management in major surgery: when does enough become sufficient? *Med* 2007; **68**:3:35
251. van den Elsen MJLJ, Leenen LPH, Kesecioglu J. Hemodynamic support of the trauma patient. *Curr Opin Anaesthesiol* 2010; **23**:269-275
252. Venn R, Steele A, Richardson P, Poloniecki J, Grounds M, Newman P. Randomized controlled trial to investigate influence of the fluid challenge on duration of hospital stay and perioperative morbidity in patients with hip fractures. *Br J Anaesth* 2002; **88**(1): 65-71
253. Vidal Melo MF, Leone BJ. Introduction of New Monitors into Clinical Anesthesia. *Anesth & Analg* 2008; **107**(3):749-750
254. Wakeling H. Oesophageal Doppler monitoring saves lives. *Clinical Services Journal* 2009; June
255. Wakeling HG, McFall M, Jenkins C, Woods WGA, Miles WFA, Sitzia J. Oesophageal Doppler guided stroke volume optimisation (SVO) shortens hospital stay after major bowel surgery. *Anaesthesia* 2005; **60**(3):307-308
256. Wakeling HG, McFall MR, Jenkins CS, Woods WGA, Miles WFA, Barclay GR, Fleming SC. Intraoperative oesophageal Doppler guided fluid management shortens postoperative hospital stay after major bowel surgery. *Br J Anaesth* 2005; **95**(5): 634-642
257. Wakeling HG. Perioperative haemodynamic optimisation. *HHE* 2002; T37-T38
258. Walker D, Usher S, Hartin J, Adam S, Brandner B, Chieveley-Williams S. Early experiences with the new awake oesophageal Doppler probe. *Br J Anaesth* 2004; **93**:471
259. Walsh SR, Tang T, Bass S, Gaunt ME. Doppler-guided intra-operative fluid management during major abdominal surgery: systematic review and meta-analysis. *Int J Clin Pract* 2008; **62**(3):466-470
260. Webb, A. Efficiency - The long goodbye, the NHS could save up to £400m a year with some simple measures to cut length of stay. *HSJ* 2008; January: 26-27
261. Webb, AR. The role of the oesophageal Doppler in the prevention of postoperative complications. *International Journal of Intensive Care* 1997 Autumn, 96-104
262. Williams AB. Enhanced recovery programs for colorectal surgery. 2005
263. Windsor A. Improving surgical outcomes, reducing length of stay. *Health Director* 2007; October
264. Wong DH. Doppler stroke volume measurement: Is it coming toward an intensive care unit near you? *Crit Care Med* 1999; **27**(7):1388-1389

265. Yamashita K, Nishiyama T, Yokoyama T, Hidehiro A, Manabe M. Cardiac output by PulseCO is not interchangeable with thermodilution in patients undergoing OPCAB. *Can J Anaesth* 2005; **52**:530-534