Supplementary Appendix

This appendix has been provided by the authors to give readers additional information.

**APPENDIX**

**Appendix 1: Medline Search Strategy**

MEDLINE(R) <1948 to October 2011>

Search Strategy:

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1 randomized controlled trial.pt. (299439)

2 Randomi?ed Controlled trial\*.mp. (379669)

3 Randomi?ed clinical trial\*.mp. (19232)

4 Random Allocation/ (70068)

5 Random allocation.mp. (70862)

6 random\*.tw. (532090)

7 clinical trial/ (459368)

8 controlled clinical trial/ (81709)

9 single-blind method/ (14512)

10 double-blind method/ (107968)

11 ((singl\* or doubl\* or trip\* or trebl\*) adj25 (blind\* or mask\*)).mp. (152788)

12 Placebos/ (29225)

13 placebo\*.tw. (129804)

14 drug therapy.fs. (1422598)

15 trial.ab. (222902)

16 groups.ab. (1055404)

17 or/1-16 (2931128)

18 exp animals/ not humans.sh. (3531583)

19 17 not 18 (2503434)

20 Proton Pump Inhibitors/ (1543)

21 Proton Pumps/ai [Antagonists & Inhibitors] (3073)

22 (proton adj5 pump adj5 inhibitor\*).mp. (6940)

23 ppi\*.tw. (8911)

24 exp Omeprazole/ (7746)

25 Benzimidazoles/ (13391)

26 (Omeprazole or losec or omez or prilosec or rapinex or zegerid).mp. (9265)

27 (esomeprazole or axagon or esporal or lucen or nexiam or nexium or sompraz or soleri).mp. (687)

28 (Lansoprazole or agopton or bamalite or lansoprazole or lanzor or monolitum or ogast or ogastro or ogastro or opiren or prevacid or prezal or pro ulco or promeco or takepron or ulpax or zoton).mp. (2036)

29 2-Pyridinylmethylsulfinylbenzimidazoles/ (2867)

30 (dexlansoprazole or kapidex or dexilant).mp. (27)

31 (pantoprazole or pantoloc or pantecta or protium or protonix).mp. (1227)

32 (rabeprazole or AcipHex or Pariet or dexrabeprazole or rablet).mp. (796)

33 or/20-32 (33999)

34 exp Histamine H2 Antagonists/ (17610)

35 ((H2 or histamine) adj3 (blocker\* or blockader\*)).mp. (1781)

36 ((H2 or histamine) adj3 (receptor\* or antagonist\*)).mp. (31612)

37 (H2 adj1 antihistaminic\*).mp. (55)

38 H2RA\*.mp. (281)

39 exp Cimetidine/ (8961)

40 Guanidines/ (16406)

41 Imidazoles/ (34333)

42 (cimetidine or acitak or altramet or biomet or dyspamet or eureceptor or galenamet or histodil or peptimax or phimetin or tagamet or ultec or zita).mp. (12187)

43 FAMOTIDINE/ (1374)

44 (famotidine or fluxid or leader acid reducer or mylanta or pepcid).mp. (1844)

45 Thiazoles/ (20066)

46 (roxatidine or Roxit).mp. (164)

47 NIZATIDINE/ (292)

48 (Nizatidine or axid or tazac or zinga).mp. (390)

49 RANITIDINE/ (4806)

50 (ranitidine or azanplus or biotidin or pylorid or raciran or raniberl or ranisen or ranitidin or rantec or sostril or taladine or tritec or wal-zan or zantac).mp. (6276)

51 Furans/ (8519)

52 or/34-51 (116854)

53 exp Peptic Ulcer/ (69464)

54 Ulcer\*.mp. (181988)

55 (esophagit\* adj5 (peptic or reflux)).mp. (5653)

56 lesion\*.mp. (529395)

57 or/53-56 (697555)

58 (bleed\* or re-bleed\* or rebleed\* or h?emorrhag\*).mp. (303114)

59 and/57-58 (42800)

60 (stress adj3 ulcer\*).mp. (2316)

61 or/59-60 (44383)

62 exp Gastrointestinal Hemorrhage/ (38645)

63 ((gastrointestinal or gastro-intestinal) adj5 (bleed\* or re-bleed\* or rebleed\* or h?emorrhag\*)).mp. (37709)

64 (h?ematochezia\* or h?ematemese\* or mel?ena\*).mp. (3762)

65 exp injury/ and exp gastric mucosa/ (374)

66 (mucos\* adj5 injur\*).tw. (4553)

67 (stomach or antrum or antral or pyloric or pylorus or gastri\* or gastropathy or epigastr\* or duodenal or duodenum or gastro-duodenal or gastroduodenal or oeso\*ag\* or esp\*ag\* or "upper GI" or UGI or "upper gastrointestinal" or "upper gastrointestinal").mp. (379294)

68 58 and 67 (31603)

69 exp Gastritis/ (16669)

70 58 and 69 (1244)

71 or/61-66,68,70 (84935)

72 exp Critical Care/ (36956)

73 exp intensive care/ (15608)

74 exp Critical Illness/ (11869)

75 exp Intensive Care Units/ (44484)

76 ICU\*.tw. (21607)

77 ((critical or intensive) adj3 (care or illness)).tw. (82390)

78 exp Nutritional Support/ (33840)

79 ((Nasogastric or nasointestinal or orogastric or transabdominal) adj2 (intubat\* or tube\*)).mp. (3704)

80 exp Intubation, Gastrointestinal/ (7538)

81 exp Monitoring, Physiologic/ (105425)

82 ((artificial or force or tube) adj3 (feeding\* or nutrition)).mp. (6028)

83 nasoduodenal tube\*.mp. (57)

84 exp Multiple Organ Failure/ (7209)

85 exp Acid-Base Equilibrium/ (14370)

86 exp Multiple Trauma/ (8727)

87 (serious\* adjinjur\*).tw. (2713)

88 (severe adj (traum\* or shock)).tw. (4225)

89 exp Perioperative Care/ (111404)

90 ((preoperative or intraoperative or perioperative) adj (care or procedure\* or period)).tw. (6846)

91 exp Resuscitation/ (63017)

92 exp Shock/ (53124)

93 exp sepsis/ (76919)

94 exp Ventilator Weaning/ (2355)

95 exp Ventilators, Mechanical/ (7602)

96 exp Ventilators, Negative-Pressure/ (295)

97 (protocol\* adj weaning).mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier] (23)

98 (ventilat\* adj weaning).mp. [mpP=title, original title, abstract, name of substance word, subject heading word] (2457)

99 ((artificial or mechanical) adjventilat\*).mp. (23340)

100 ventilat\*.tw. (101822)

101 or/72-100 (602969)

102 33 or 52 (146175)

103 17 and 71 and 101 and 102 (310)

**APPENDIX 2**

**Appendix 2: EMBASE Search Strategy**

EMBASE <1980 to October 2011>

1 randomized controlled trial/ (289177)

2 Randomi?ed Controlled trial\*.mp. (314622)

3Randomi?edclinical trial\*.mp. (23045)

4 RCT.tw. (6444)

5 Randomization/ (53408)

6 random allocation.mp. (1018)

7 random\*.tw. (623536)

8 clinical trial/ (826633)

9 controlled clinical trial/ (169429)

10 single-blind method/ (13857)

11 double-blind method/ (101415)

12 ((singl\* or doubl\* or trip\* or trebl\*) adj25 (blind\* or mask\*)).mp. (170144)

13 PLACEBO/ (174852)

14 placebo\*.tw. (155118)

15 or/1-14 (1293688)

16 exp animals/ not humans.sh. (1640248)

17 15 not 16 (1248944)

18 exp proton pump inhibitor/ (37679)

19 (proton adj5 pump adj5 inhibitor$).mp. (18581)

20 ppi\*.tw. (10305)

21 omeprazole/ (21734)

22 (Omeprazole or losec or omez or prilosec or rapinex or zegerid).mp. (22377)

23 esomeprazole/ (3263)

24 (esomeprazole or axagon or esporal or lucen or nexiam or nexium or sompraz or soleri).mp. (3403)

25 lansoprazole/ (6845)

26 (Lansoprazole or agopton or bamalite or lansoprazole or lanzor or monolitum or ogast or ogastro or ogastro or opiren or prevacid or prezal or pro ulco or promeco or takepron or ulpax or zoton).mp. (6988)

27 "2 [[(2 pyridyl)methyl]sulfinyl]benzimidazole derivative"/ (595)

28 dexlansoprazole/ (34)

29 (dexlansoprazole or kapidex or dexilant).mp. (54)

30 pantoprazole/ (4462)

31 (pantoprazoleorpantolocorpantectaorprotiumorprotonix).mp. (4674)

32 RABEPRAZOLE/ (2623)

33 (rabeprazole or AcipHex or Pariet or dexrabeprazole or rablet).mp. (2669)

34 or/18-33 (46607)

35 exp histamine H2 receptor antagonist/ (55030)

36 H2 blocker\*.mp. (1606)

37 ((H2 or histamine) adj3 (blocker\* or blockader\*)).mp. (2504)

38 ((H2 or histamine) adj3 (receptor\* or antagonist\*)).mp. (40097)

39 (H2 adj1 antihistaminic\*).mp. (98)

40 H2RA\*.mp. (429)

41 CIMETIDINE/ (28747)

42 (cimetidine or acitak or altramet or biomet or dyspamet or eureceptor or galenamet or histodil or peptimax or phimetin or tagamet or ultec or zita).mp. (31048)

43 FAMOTIDINE/ (6291)

44 (famotidine or fluxid or leader acid reducer or mylanta or pepcid).mp. (6863)

45 ROXATIDINE/ (392)

46 (roxatidine or Roxit).mp. (591)

47 NIZATIDINE/ (1822)

48 (Nizatidine or axid or tazac or zinga).mp. (1884)

49 RANITIDINE/ (19439)

50 (ranitidine or azanplus or biotidin or pylorid or raciran or raniberl or ranisen or ranitidin or rantec or sostril or taladine or tritec or wal-zan or zantac).mp. (20506)

51 or/35-50 (75834)

52 exp peptic ulcer/ (89010)

53 Ulcer\*.mp. (214685)

54 (esophagit\* adj5 (peptic or reflux)).mp. (9092)

55 lesion\*.mp. (614022)

56 or/52-55 (818680)

57 (bleed\* or re-bleed\* or rebleed\* or h?emorrhag\*).mp. (410886)

58 56 and 57 (56057)

59 (stress adj3 ulcer\*).mp. (3932)

60 or/58-59 (58836)

61 exp gastrointestinal hemorrhage/ (55333)

62 ((gastrointestinal or gastro-intestinal) adj5 (bleed\* or re-bleed\* or rebleed\* or h?emorrhag\*)).mp. (44768)

63 (h?ematochezia\* or h?ematemese\* or mel?ena\*).mp. (7173)

64 exp injury/ and exp stomach mucosa/ (2085)

65 (mucos$ adj5 injur$).tw. (5272)

66 (stomach or antrum or antral or pyloric or pylorus or gastri\* or gastropathy or epigastr\* or duodenal or duodenum or gastro-duodenal or gastroduodenal or oeso\*ag\* or esp\*ag\* or "upper GI" or UGI or "upper gastrointestinal" or "upper gastrointestinal").mp. (452263)

67 57 and 66 (37768)

68 exp gastritis/ (41217)

69 57 and 68 (2910)

70 or/60-65,67,69 (115193)

71 exp intensive care/ (326296)

72 exp critical illness/ (17927)

73 exp intensive care unit/ (54092)

74 ICU\*.tw. (30947)

75 ((critical or intensive) adj3 (care or illness)).tw. (102576)

76 exp artificial feeding/ (47964)

77 ((Nasogastric or nasointestinal or orogastric or transabdominal) adj2 (intubat\* or tube\*)).mp. (6216)

78 exp patient monitoring/ (98721)

79 exp digestive tract intubation/ (5074)

80 feeding apparatus/ (1496)

81 ((artificial or force or tube) adj3 (feeding\* or nutrition)).tw. (6944)

82 nasoduodenal tube\*.mp. (70)

83 exp multiple organ failure/ (16665)

84 acid base balance/ (15544)

85 multiple trauma/ (8063)

86 (serious\* adjinjur\*).tw. (3019)

87 (severe adj (traum\* or shock)).tw. (4983)

88 perioperative period/ (19218)

89 ((perioperative or intraoperative or postoperative) adj3 (care or procedure\* or period)).tw. (40313)

90 exp shock/ (69304)

91 exp sepsis/ (120092)

92 exp artificial ventilation/ (88449)

93 (protocol\* adj weaning).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer] (32)

94 (ventilat\* adj weaning).mp. [mpP=title, original title, abstract, name of substance word, subject heading word] (569)

95 ((artificial or mechanical) adjventilat\*).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer] (69584)

96 ventilat\*.tw. (119113)

97 or/71-96 (674665)

98 34 or 51 (109817)

99 17 and 70 and 97 and 98 (534)

**APPENDIX 3**

**Appendix 3: Cochrane Central Register of Controlled Trials Search Strategy**

Cochrane Central Register of Controlled Trials <2nd Quarter 2011>

1 Proton Pump Inhibitors/ (152)

2 Proton Pumps/ai [Antagonists & Inhibitors] (358)

3 (proton adj5 pump adj5 inhibitor\*).mp. (1032)

4 ppi\*.tw. (514)

5 exp Omeprazole/ (2010)

6 Benzimidazoles/ (1243)

7 (Omeprazole or losec or omez or prilosec or rapinex or zegerid).mp. (2924)

8 (esomeprazole or axagon or esporal or lucen or nexiam or nexium or sompraz or soleri).mp. (271)

9 (Lansoprazole or agopton or bamalite or lansoprazole or lanzor or monolitum or ogast or ogastro or ogastro or opiren or prevacid or prezal or pro ulco or promeco or takepron or ulpax or zoton).mp. (730)

10 2-Pyridinylmethylsulfinylbenzimidazoles/ (907)

11 (dexlansoprazole or kapidex or dexilant).mp. (10)

12 (pantoprazole or pantoloc or pantecta or protium or protonix).mp. (417)

13 (rabeprazole or AcipHex or Pariet or dexrabeprazole or rablet).mp. (277)

14 or/1-13 (4820)

15 exp Histamine H2 Antagonists/ (2994)

16 ((H2 or histamine) adj3 (blocker\* or blockader\*)).mp. (317)

17 ((H2 or histamine) adj3 (receptor\* or antagonist\*)).mp. (3592)

18 (H2 adj1 antihistaminic\*).mp. (3)

19 H2RA\*.mp. (39)

20 exp Cimetidine/ (1312)

21 Guanidines/ (630)

22 Imidazoles/ (1615)

23 (cimetidine or acitak or altramet or biomet or dyspamet or eureceptor or galenamet or histodil or peptimax or phimetin or tagamet or ultec or zita).mp. (2520)

24 FAMOTIDINE/ (354)

25 (famotidine or fluxid or leader acid reducer or mylanta or pepcid).mp. (679)

26 Thiazoles/ (795)

27 (roxatidine or Roxit).mp. (83)

28 NIZATIDINE/ (114)

29 (Nizatidine or axid or tazac or zinga).mp. (199)

30 RANITIDINE/ (1467)

31 (ranitidine or azanplus or biotidin or pylorid or raciran or raniberl or ranisen or ranitidin or rantec or sostril or taladine or tritec or wal-zan or zantac).mp. (2616)

32 Furans/ (184)

33 or/15-32 (9963)

34 exp Peptic Ulcer/ (3320)

35 Ulcer\*.mp. (12353)

36 (esophagit\* adj5 (peptic or reflux)).mp. (605)

37 lesion\*.mp. (11538)

38 or/34-37 (23566)

39 (bleed\* or re-bleed\* or rebleed\* or h?emorrhag\*).mp. (17184)

40 and/38-39 (1680)

41 (stress adj3 ulcer\*).mp. (207)

42 or/40-41 (1768)

43 exp Gastrointestinal Hemorrhage/ (1428)

44 ((gastrointestinal or gastro-intestinal) adj5 (bleed\* or re-bleed\* or rebleed\* or h?emorrhag\*)).mp. (1870)

45 (h?ematochezia\* or h?ematemese\* or mel?ena\*).mp. (108)

46 exp injury/ and exp gastric mucosa/ (8)

47 (mucos\* adj5 injur\*).tw. (263)

48 (stomach or antrum or antral or pyloric or pylorus or gastri\* or gastropathy or epigastr\* or duodenal or duodenum or gastro-duodenal or gastroduodenal or oeso\*ag\* or esp\*ag\* or "upper GI" or UGI or "upper gastrointestinal" or "upper gastrointestinal").mp. (19653)

49 39 and 48 (2039)

50 exp Gastritis/ (486)

51 39 and 50 (42)

52 or/42-47,49,51 (3799)

53 exp Critical Care/ (1223)

54 exp intensive care/ (737)

55 exp Critical Illness/ (695)

56 exp Intensive Care Units/ (1580)

57 ICU\*.tw. (1875)

58 ((critical or intensive) adj3 (care or illness)).tw. (5496)

59 exp Nutritional Support/ (2267)

60 ((Nasogastric or nasointestinal or orogastric or transabdominal) adj2 (intubat\* or tube\*)).mp. (592)

61 exp Intubation, Gastrointestinal/ (450)

62 exp Monitoring, Physiologic/ (6857)

63 ((artificial or force or tube) adj3 (feeding\* or nutrition)).tw. (487)

64 nasoduodenal tube\*.mp. (9)

65 exp Multiple Organ Failure/ (249)

66 exp Acid-Base Equilibrium/ (349)

67 exp Multiple Trauma/ (149)

68 (serious\* adjinjur\*).tw. (52)

69 (severe adj (traum\* or shock)).tw. (222)

70 exp Perioperative Care/ (4370)

71 ((perioperative or intraoperative or postoperative) adj3 (care or procedure\* or period)).tw. (4304)

72 exp Resuscitation/ (2618)

73 exp Shock/ (996)

74 exp sepsis/ (2233)

75 exp Ventilator Weaning/ (286)

76 exp Ventilators, Mechanical/ (188)

77 exp Ventilators, Negative-Pressure/ (22)

78 (protocol\* adj weaning).mp. [mp=title, original title, abstract, mesh headings, heading words, keyword] (8)

79 (ventilat\* adj weaning).mp. [mpP=title, original title, abstract, name of substance word, subject heading word] (320)

80 ((artificial or mechanical) adjventilat\*).mp. (2506)

81 ventilat\*.tw. (9763)

82 or/53-81 (33818)

83 14 or 33 (13721)

84 52 and 82 and 83 (138)