**Appendix – Search Strategies**

**MEDLINE was searched using the PubMed interface on November 10, 2017**

(((((((("Glucose"[Mesh]) OR Glucose) OR dextrose) OR sugar) OR "sugar solution") OR sugar\*))

AND (((((((intraven\*) OR "intravenous infusion") OR "IV fluids") OR "intravenous fluids") OR "Hypodermoclysis"[Mesh]) OR "Administration, Intravenous"[Mesh]) OR "Infusions, Intravenous"[Mesh]))

AND ((((((((("Dehydration"[Mesh]) OR "Water-Electrolyte Balance"[Mesh]) OR dehydrat\*) OR "dehydration therapy") OR "negative fluid balance") OR "negative water balance") OR "fluid deficit") OR "water deficiency") OR "fluid balance")

**MEDLINE was searched using the OVID interface on November 10, 2017**

1 exp Dehydration/

2 dehydrat\*.mp.

3 dehydration therapy.mp.

4 1 or 2 or 3

5 negative fluid balance.mp.

6 negative water balance.mp.

7 fluid deficit.mp.

8 water deficiency.mp.

9 fluid balance.mp.

10 Water-Electrolyte Balance/ or Water-Electrolyte Imbalance/

11 5 or 6 or 7 or 8 or 9 or 10

12 exp Infusions, Intravenous/

13 intravenous infusion.mp.

14 exp Administration, Intravenous/

15 IV fluids.mp.

16 intravenous fluids.mp.

17 exp Hypodermoclysis/

19 glucose.mp. or exp Glucose/

20 dextrose.mp.

21 sugar solution.mp.

22 sugar.mp.

23 fluid$.mp.

24 sugar$.mp.

25 intravenous$.mp.

26 12 or 13 or 14 or 15 or 16 or 17 or 25

27 19 or 20 or 21 or 22 or 24

28 4 or 11

29 26 and 27 and 28

**EMBASE was searched on November 10, 2017**

* **#31 AND #32 AND #33**
* #33**'glucose'/exp OR 'sugar'/exp OR 'sugar solution':ti,ab,kw OR 'dextrose':ti,ab,kw OR 'glucose':ti,ab,kw**
* #32**'iv fluids':ti,ab,kw OR 'intravenous fluids':ti,ab,kw OR 'infusion fluid'/exp OR 'intravenous infusion':ti,ab,kw**
* #31**'dehydration therapy':ti,ab,kw OR 'negative fluid balance':ti,ab,kw OR 'negative water balance':ti,ab,kw OR 'fluid deficit':ti,ab,kw OR 'water deficiency':ti,ab,kw OR 'fluid balance':ti,ab,kw OR 'electrolyte balance'/exp OR 'dehydrat\*':ti,ab,kw OR 'dehydration'/exp**

**Web of Science was searched on November 10, 2017**

* 1. **TOPIC:** (dehydrat\*) *OR* **TOPIC:** ("dehydration therapy") *OR* **TOPIC:** ("negative fluid balance") *OR* **TOPIC:** ("negative water balance") *OR* **TOPIC:** ("fluid deficit") *OR* **TOPIC:** ("water deficiency") *OR***TOPIC:** ("fluid balance") *OR* **TOPIC:** ("water-electrolyte balance") *OR* **TOPIC:** ("water electrolyte balance")   
     *DocType=All document types; Language=All languages;*
  2. **TOPIC:** (glucose) *OR* **TOPIC:** (dextrose) *OR* **TOPIC:** (sugar) *OR* **TOPIC:** ("sugar solution")   
     *DocType=All document types; Language=All languages;*
  3. TS=("intravenous infusion") OR TS=("infusion, intravenous") OR TS=("intravenous administration") OR TS=("intravenous fluids")   
     *DocType=All document types; Language=All languages;*
  4. *#1 AND #2 AND #3*

*DocType=All document types; Language=All languages;*

**Scopus was searched on November 10, 2017**

( ( TITLE-ABS-KEY ( dehydrat\* ) OR TITLE-ABS-KEY ( "dehydration therapy" ) OR TITLE-ABS-KEY ( "negative fluid balance" ) OR TITLE-ABS-KEY ( "negative water balance" ) OR TITLE-ABS-KEY ( "fluid deficit" ) OR TITLE-ABS-KEY ( "water deficiency" ) OR TITLE-ABS-KEY ( "fluid balance" ) OR TITLE-ABS-KEY ( "water electrolyte balance" ) OR TITLE-ABS-KEY ( "water-electrolyte balance" ) ) ) AND ( TITLE-ABS-KEY ( "intravenous infusion" ) OR TITLE-ABS-KEY ( "intravenous administration" ) OR TITLE-ABS-KEY ( "IV fluids" ) OR TITLE-ABS-KEY ( "Intravenous fluids" ) OR TITLE-ABS-KEY ( "hypodermiclysis" ) ) AND ( ( TITLE-ABS-KEY ( glucose ) OR TITLE-ABS-KEY ( sugar ) OR TITLE-ABS-KEY ( "sugar solution" ) OR TITLE-ABS-KEY ( dextrose ) ) )

**Cochrane Library was searched on December 12, 2017**

ID Search Hits

#1 MeSH descriptor: [Glucose] explode all trees 16283

#2 glucose 40866

#3 dextrose 1635

#4 sugar 3718

#5 "sugar solution" 24

#6 sugar\* 4310

#7 #1 or #2 or #3 or #4 or #5 or #6 44231

#8 MeSH descriptor: [Hypodermoclysis] explode all trees 12

#9 MeSH descriptor: [Administration, Intravenous] explode all trees 17678

#10 MeSH descriptor: [Infusions, Intravenous] explode all trees 9956

#11 intraven\* 77851

#12 "intravenous infusion" 4802

#13 "IV fluids" 195

#14 "intravenous fluids" 527

#15 #8 or #9 or #10 or #11 or #12 or #13 or #14 77915

#16 MeSH descriptor: [Dehydration] explode all trees 460

#17 MeSH descriptor: [Water-Electrolyte Balance] explode all trees 960

#18 dehydrat\* 2610

#19 dehydration therapy 1640

#20 negative fluid balance 443

#21 negative water balance 379

#22 fluid deficit 434

#23 water deficiency 577

#24 fluid balance 1827

#25 #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 5699

#26 #7 and #15 and #25 419

#27 MeSH descriptor: [Randomized Controlled Trial] explode all trees 195

#28 "randomized controlled trial" 597097

#29 #27 or #28 597097

#30 #26 and #29 285

**ClinicalTrials.gov was searched on December 12, 2017**

(Glucose OR dextrose OR sugar OR "sugar solution" OR sugar\*) AND (intraven\* OR "intravenous infusion" OR "IV fluids" OR "intravenous fluids" OR "Hypodermoclysis" OR "Administration, Intravenous" OR "Infusions, Intravenous") AND ("Dehydration" OR "Water-Electrolyte Balance" OR dehydrat\* OR "dehydration therapy" OR "negative fluid balance" OR "negative water balance" OR "fluid deficit" OR "water deficiency" OR "fluid balance")