1 S2. Supplemental document 1.

Systematic review search strategy, study selection and data extraction

2

3 Appendicitis

- 4 "Appendix"[Mesh] OR appendix[tiab] OR appendix[ot] OR "Appendicitis"[Mesh] OR
- 5 "Appendectomy"[Mesh] OR appendicit*[tiab] OR appendicit*[ot] OR appendectom*[tiab] OR
- 6 appendectom*[ot] OR appendicectom*[tiab] OR appendicectom*[ot]

7 Children

- 8 child*[tw] OR schoolchild*[tw] OR infan*[tw] OR adolescen*[tw] OR pediatri*[tw] OR
- 9 paediatr*[tw] OR neonat*[tw] OR boy[tw] OR boys[tw] OR boyhood[tw] OR girl[tw] OR
- 10 girls[tw] OR girlhood[tw] OR youth[tw] OR youths[tw] OR baby[tw] OR babies[tw] OR
- 11 toddler*[tw] OR teen[tw] OR teens[tw] OR teenager*[tw] OR newborn*[tw] OR
- 12 postneonat*[tw] OR postnat*[tw] OR perinat*[tw] OR puberty[tw] OR preschool*[tw] OR
- 13 suckling*[tw] OR picu[tw] OR nicu[tw]

14 3.2.2 Study selection

- 15 Selection of studies will be performed by 2 independent reviewers (MK, JF) according to the
- 16 below mentioned in- and exclusion criteria. In case of disagreement between two reviewers,
- 17 a third independent reviewer (RG) will make the final decision.
- 18 Inclusion/Exclusion Criteria:
- 19 All RCTs and systematic reviews/meta-analyses reporting the outcome of treatment of acute
- 20 uncomplicated appendicitis will be included in this systematic review. By including systematic
- 21 reviews that also report on non-comparative studies we expect to identify all reported
- treatment outcomes, including those from the relatively new field of non-operative
- 23 management of uncomplicated appendicitis. Publications before January 2014 will be
- 24 excluded. Only studies in children (<18 years of age) will be included. Studies only reporting
- on the outcome of treatment in complex or complicated appendicitis (gangrenous
- 26 appendicitis, appendiceal mass, appendiceal abscess) will be excluded.

27 3.2.3 Data extraction

- 28 The two reviewers will extract the data independently using the predefined data extraction
- 29 form shown in Appendix A. In case of disagreement a third reviewer will make the final
- decision. A risk of bias assessment of the individual studies is not applicable as we will not
- 31 be using individual study data but only the reported outcomes. As diversity in terminology will
- 32 be anticipated, we decided to initially report all outcome measure as mentioned in the original
- 33 study. Outcome measures will be mapped independently by two reviewers and in case of
- 34 disagreement a third reviewer will make the final decision. After data extraction of all studies
- is completed, a meeting of the study management group will be held between to discuss
- 36 potential similarity between the outcome measures in order to assign an appropriate term for 37 them.