

Diagnosis and treatment of appendicitis: Systematic review and meta-analysis

Literature Search Strategies

Summary - Run Dates: 8/20/20 (First Run, Screening); 4/28/22 (Run 2, individual KQs)		
Librarian: Holly Ann Burt		
OVERALL SEARCH RESULTS	Total items identified by database searches (including trials)	9073
	Total Items located by handsearching trials, databases, and references	403
	Total trials identified in searches	837
	Total duplicates identified (across KQs, by HAB, in Endnote, in Covidence)	5458
	Total unique items screened	3181
First Run Results	Total items identified by database searches	6678
	Additional articles located by handsearching	170
	Total trials identified	432
	Total duplicates	3911
	Total items screened	2505
	Records excluded	1758
	Unique items to be split between KQ1-KQ8	747
Database searched (Coverage)		
Systematic Reviews Cochrane Library/ Cochrane (2009-2022)	Clinical Trials Clinicaltrials.gov/NLM (2000-2022)	Medicine CINAHL/EBSCO (1937-2022) Embase/Elsevier (1947-2022)* PubMed/NLM (1809/1966-2022)
Databases handsearched for articles published by the trials retrieved by Clinicaltrials.gov and Cochrane: ICTRP (International Clinical Trials Registry Platform)/WHO, Clinicaltrials.gov, PubMed, and Google Scholar		

1. Should alternative imaging versus abdominal CT be used for managing acute appendicitis?		
First Run PubMed KQ3	((Diagnostic imaging[mh] OR "diagnostic imaging"[sh] OR MRI[tw] OR Ultrasound [tw] OR ultrasonography[tw] OR "CT scan"[tw] OR "computed tomography "[tw]) AND (acute[tw]) AND (appendicitis[majr] OR appendicitis[title] OR appendicitis[ot]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1905/01/01"[PDAT] : "2009/12/31"[PDAT]))	650
First Run Embase KQ3	('acute appendicitis'/exp OR 'acute appendicitis') AND ('ultrasound'/exp OR ultrasound OR 'x-ray tomography'/exp OR 'x-ray tomography' OR 'nuclear magnetic resonance imaging'/exp OR 'nuclear magnetic resonance imaging') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim) AND [english]/lim AND [2010-2020]/py	444
First Run Cochrane KQ3	(appendicitis):ti,ab,kw AND ((ultrasound):ti,ab,kw OR ("ultrasonography scan"):ti,ab,kw OR ("MRI scan"):ti,ab,kw OR ("Magnetic resonance imaging"):ti,ab,kw OR ("CT Scan"):ti,ab,kw OR ("x-ray computed tomography"):ti,ab,kw); 2010-2020; Trials 2010-2020	85

First Run CINAHL KQ3	((MH "Tomography, X-Ray Computed+") OR (MH "Magnetic Resonance Imaging+") OR (MH "Ultrasonography") OR (SU Tomography, X-Ray Computed) OR (SU Ultrasonography) OR (SU Magnetic Resonance Imaging)) AND ((MH "Appendicitis") OR (SU Appendicitis)); Limiters - Published Date: 20100101-20201231; English Language; Research Article	363
CT.gov	CT OR MRI OR Ultrasound OR X-ray Appendicitis	71
Run 2 PubMed KQ3	((Diagnostic imaging[mh] OR "diagnostic imaging"[sh] OR MRI[tw] OR Ultrasound [tw] OR ultrasonography[tw] OR "CT scan"[tw] OR "computed tomography "[tw]) AND (acute[tw]) AND (appendicitis[majr] OR appendicitis[title] OR appendicitis[ot]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la] NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1965/01/01"[CRDT] : "2020/08/01"[CRDT]))	146
Run 2 Embase KQ3	('acute appendicitis'/exp OR 'acute appendicitis') AND ('ultrasound'/exp OR ultrasound OR 'x-ray tomography'/exp OR 'x-ray tomography' OR 'nuclear magnetic resonance imaging'/exp OR 'nuclear magnetic resonance imaging') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim) AND [english]/lim AND [2020-2022]/py	176
Run 2 CINAHL KQ3	((MH "Tomography, X-Ray Computed+") OR (MH "Magnetic Resonance Imaging+") OR (MH "Ultrasonography")) AND (MH "Appendicitis") OR ((SU Tomography, X-Ray Computed OR SU Ultrasonography OR SU Magnetic Resonance Imaging) AND (SU Appendicitis)); Limiters - Published Date: 20200701-20201231; English Language	94
Run 2 Cochrane KQ3	(appendicitis):ti,ab,kw AND ((ultrasound):ti,ab,kw OR ("ultrasonography scan"):ti,ab,kw OR ("MRI scan"):ti,ab,kw OR ("Magnetic resonance imaging"):ti,ab,kw OR ("CT Scan"):ti,ab,kw OR ("x-ray computed tomography"):ti,ab,kw); with Cochrane Library publication date from Jul 2020 to Dec 2022	21
CT.gov	CT OR MRI OR Ultrasound OR X-ray Appendicitis	87
KQ3 First Run SEARCH RESULTS	Total records identified by database searches	1613
	Additional records located by handsearching	31
	Total trials identified in searches	110
	Total duplicates identified	97
	Total records added to First Run for screening	1437
	Number of records identified for KKQ3 after First Run screening	344
KQ3 Run 2 SEARCH RESULTS	Total records identified by database searches	524
	Additional records located by handsearching	64
	Total trials located	95
	Total duplicates identified	155
	Total records screened (including records identified in First Run)	682
Summary	Total database records	2137
	Total handsearched records	95

2. Should patients with acute, uncomplicated appendicitis be managed nonoperatively with antibiotics versus appendectomy? (society perspective)

Database	Final search strategies	Results
First Run PubMed KQ1	((appendicitis[majr] OR appendicitis[title] OR appendicitis[ot]) AND (acute[tw] OR simple [tw] OR uncomplicated[tw]) AND ("medical treatment"[tw] OR "drug therapy"[sh] OR "administration and dosage"[sh] OR ((appendectomy[mh] OR appendectomy[tw] OR appendectomies[tw] OR appendicectomies[tw] OR appendicectomy[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw])) OR antibiotic [tw] OR antibiotics[tw] OR "Anti-Bacterial Agents"[mh] OR "Anti-Bacterial Agents"[pa]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR (complicated[title] NOT uncomplicated[title]) OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1905/01/01"[PDAT] : "2009/12/31"[PDAT]))	827
First Run Embase KQ1	('uncomplicated appendicitis'/exp OR 'uncomplicated appendicitis' OR 'uncomplicated acute appendicitis'/exp OR 'uncomplicated acute appendicitis' OR (('appendicitis'/exp OR appendicitis) AND (uncomplicated OR simple))) AND ('antibiotic agent'/exp OR 'antibiotic agent' OR 'antibiotic therapy'/exp OR 'antibiotic therapy' OR 'conservative treatment'/exp OR 'conservative treatment' OR 'drug therapy'/exp OR 'drug therapy' OR (('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('appendectomy'/exp OR appendectomy))) AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2010-2020]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	354
First Run Cochrane KQ1	((appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) OR [Anti-Bacterial Agents]:MH) AND (appendicitis):ti,ab,kw AND (uncomplicated):ti,ab,kw; 2010-2020	65
First Run CINAHL KQ1	(MH "Appendicitis") AND ((MH "Antibiotics+") OR (MH "Drug Therapy+") OR ((MH "Surgery, Laparoscopic+") AND (MH "Appendectomy"))) NOT TI complicated; Published Date: 20100101-20201231; English Language; Research Article	88
CT.gov	uncomplicated AND (laparoscopic OR antibiotics) Appendicitis	28
Run 2 PubMed KQ1	((appendicitis[majr] OR appendicitis[title] OR appendicitis[ot]) AND (acute[tw] OR simple [tw] OR uncomplicated[tw]) AND ("medical treatment"[tw] OR "drug therapy"[sh] OR "administration and dosage"[sh] OR ((appendectomy[mh] OR appendectomy[tw] OR appendectomies[tw] OR appendicectomies[tw] OR appendicectomy[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw])) OR antibiotic [tw] OR antibiotics[tw] OR "Anti-Bacterial Agents"[mh] OR "Anti-Bacterial Agents"[pa]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR (complicated[title] NOT uncomplicated[title]) OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1965/01/01"[CRDT] : "2020/08/01"[CRDT]))	237

Run 2 Embase KQ1	('uncomplicated appendicitis'/exp OR 'uncomplicated appendicitis' OR 'uncomplicated acute appendicitis'/exp OR 'uncomplicated acute appendicitis' OR (('appendicitis'/exp OR appendicitis) AND (uncomplicated OR simple))) AND ('antibiotic agent'/exp OR 'antibiotic agent' OR 'antibiotic therapy'/exp OR 'antibiotic therapy' OR 'conservative treatment'/exp OR 'conservative treatment' OR 'drug therapy'/exp OR 'drug therapy' OR (('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('appendectomy'/exp OR appendectomy))) AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2020-2022]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	156
Run 2 Cochrane KQ1	(MH "Appendicitis") AND ((MH "Antibiotics+") OR (MH "Drug Therapy+") OR ((MH "Surgery, Laparoscopic+") AND (MH "Appendectomy"))) NOT TI complicated; Published Date: 20200701-20221231; English Language;	65
Run 2 Cochrane KQ1	((appendectomy):ti,ab,kw AND (('laparoscopic'):ti,ab,kw OR [Laparoscopy]:MH) OR [Anti-Bacterial Agents]:MH) AND (appendicitis):ti,ab,kw AND (uncomplicated):ti,ab,kw; with Cochrane Library publication date from Jul 2020 to Dec 2022	15
CT.gov	uncomplicated AND (laparoscopic OR antibiotics) Appendicitis	34
KQ1 First Run SEARCH RESULTS	Total records identified by database searches	1362
	Additional records located by handsearching	39
	Total trials identified in searches	49
	Total duplicates identified	67
	Total records added to First Run for screening	1285
	Number of records identified for KKQ1 after First Run screening	157
KQ1 Run 2 SEARCH RESULTS	Total records identified by database searches	507
	Additional records located by handsearching	46
	Total trials located	36
	Total duplicates identified	210
	Total records screened (including records identified in First Run)	464
Summary	Total database records	1869
	Total handsearched records	85

3. In patients with complicated appendicitis, should operative management versus nonoperative management be used?

First Run PubMed KQ4	((appendicitis[majr] OR appendicitis[title] OR appendicitis[ot]) AND (Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw]) AND (nonoperative[tw] OR nonoperatively[tw] OR medical treatment[tw] OR "drug therapy"[sh] OR "administration and dosage"[sh] OR antibiotic[tw] OR antibiotics[tw] OR observation[tiab] OR conservative[tw] OR Anti-Bacterial Agents[mh] OR Anti-Bacterial Agents[pa] OR ("ileocecal resection"[tw] OR "ileo-cecal resection"[tw] OR "appendectomy"[mh] OR "appendectomy"[tw] OR "appendectomies"[tw] OR "appendicectomies"[tw] OR "appendicectomy"[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw])) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation	714
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	Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND English[lang]) NOT (Case reports[pt] OR "case report"[tw] OR (uncomplicated[title] NOT complicated[title]) OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR dog[tiab] OR dogs[tiab] OR porcine[tiab] OR ("1905/01/01"[PDAT] : "2009/12/31"[PDAT]))	
First Run Embase KQ4	('antibiotic agent'/exp OR 'antibiotic agent' OR 'antibiotic therapy'/exp OR 'antibiotic therapy' OR 'conservative treatment'/exp OR 'conservative treatment' OR (('appendectomy'/exp OR appendectomy OR 'ileostomy'/exp OR ileostomy) AND ('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy)) OR 'drug therapy'/exp OR 'drug therapy') AND ('complicated appendicitis'/exp OR 'complicated appendicitis' OR (('appendicitis'/exp OR appendicitis) AND complicated) OR 'appendix perforation'/exp OR 'appendix perforation') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2010-2020]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	686
First Run Cochrane KQ4	((appendectomy):ti,ab,kw AND (('laparoscopic'):ti,ab,kw OR [Laparoscopy]:MH) OR [Anti-Bacterial Agents]: MH OR [Conservative Treatment]: MH) AND (appendicitis):ti,ab,kw AND ((complicated):ti,ab,kw OR (perforated):ti,ab,kw) ; 2010-2020; Trials 2010-2020	108
First Run CINAHL KQ4	(MH "Appendicitis") AND ((MH "Antibiotics+") OR (MH "Drug Therapy+") OR (((MH "Appendectomy") OR (MH "Ileostomy"))) AND (MH "Surgery, Laparoscopic+")); Limiters - Published Date: 20100101-20201231; English Language; Research Article	138
CT.gov	(Complicated OR abscess OR perforated OR phlegmon OR gangrenous) Appendicitis	101
Run 2 PubMed KQ4	((appendicitis[majr] OR appendicitis[title] OR appendicitis[ot]) AND (Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw]) AND (nonoperative[tw] OR nonoperatively[tw] OR medical treatment[tw] OR "drug therapy"[sh] OR "administration and dosage"[sh] OR antibiotic[tw] OR antibiotics[tw] OR observation[tiab] OR conservative[tw] OR Anti-Bacterial Agents[mh] OR Anti-Bacterial Agents[pa] OR ("ileocecal resection"[tw] OR "ileo-cecal resection"[tw] OR "appendectomy"[mh] OR "appendectomy"[tw] OR "appendectomies"[tw] OR "appendicectomies"[tw] OR "appendicectomy"[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw]))) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND English[lang]) NOT (Case reports[pt] OR "case report"[tw] OR (uncomplicated[title] NOT complicated[title]) OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR dog[tiab] OR dogs[tiab] OR porcine[tiab]] OR ("1965/01/01"[CRDT] : "2020/08/01"[CRDT]))	183
Run 2 Embase KQ4	('antibiotic agent'/exp OR 'antibiotic agent' OR 'antibiotic therapy'/exp OR 'antibiotic therapy' OR 'conservative treatment'/exp OR 'conservative treatment' OR (('appendectomy'/exp OR appendectomy OR 'ileostomy'/exp OR ileostomy) AND ('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy)) OR 'drug therapy'/exp OR 'drug therapy') AND ('complicated appendicitis'/exp OR 'complicated appendicitis' OR (('appendicitis'/exp OR appendicitis) AND complicated) OR 'appendix perforation'/exp OR 'appendix perforation') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2020-2022]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	250

Run 2 CINAHL KQ4	((MH "Appendicitis") AND ((MH "Antibiotics+") OR (MH "Drug Therapy+") OR (((MH "Appendectomy") OR (MH "Ileostomy")) AND (MH "Surgery, Laparoscopic+")))); Published Date: 20200701-20201231; English Language	74
Run 2 Cochrane KQ4	((appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) OR [Anti-Bacterial Agents]: MH OR [Conservative Treatment]: MH) AND (appendicitis):ti,ab,kw AND ((complicated):ti,ab,kw OR (perforated):ti,ab,kw)	19
CT.gov	(Complicated OR abscess OR perforated OR phlegmon OR gangrenous) Appendicitis	128
KQ4 First Run SEARCH RESULTS	Total records identified by database searches	1747
	Additional records located by handsearching	39
	Total trials identified in searches	131
	Total duplicates identified	107
	Total records added to First Run for screening	1548
	Number of records identified for KKQ4 after First Run screening	106
KQ4 Run 2 SEARCH RESULTS	Total records identified by database searches	654
	Additional records located by handsearching	45
	Total trials located	134
	Total duplicates identified	210
	Total records screened (including records identified in First Run)	461
Summary	Total database records	2401
	Total handsearched records	84

4. In patients with uncomplicated appendicitis undergoing appendectomy, should operation occur greater than 12 hours after diagnosis compared to immediate operation (< 12 hours)?		
First Run PubMed KQ2	((appendicitis[mh] OR appendicitis[tw]) AND ("Time Factors"[mh] OR "Time-to-Treatment"[mh] OR "Time-to-Treatment" [tw] OR "Time-to-Theater" [tw] OR "Time-to-Theatre" [tw] OR "Time to surgery" [tw] OR (diagnosis[tiab] AND surgery[tiab]) OR delay[tiab]) AND (acute[tw] OR simple[tw] OR uncomplicated[tw]) AND (appendectomy[mh] OR appendectomy[tw] OR appendectomies[tw] OR appendicectomies[tw] OR appendicectomy[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR complicated[title] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1905/01/01"[PDAT] : "2009/12/31"[PDAT]))	155
First Run Embase KQ2	('appendicitis'/exp OR appendicitis) AND ('therapy delay'/exp OR 'therapy delay' OR 'time to surgery'/exp OR 'time to surgery' OR 'time to treatment'/exp OR 'time to treatment') AND ('appendectomy'/exp OR appendectomy) AND ('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2010-2020]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	33
First Run Cochrane	((appendectomy):ti,ab,kw AND ("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) AND (appendicitis):ti,ab,kw AND (uncomplicated):ti,ab,kw; 2010-2020	41

CINAHL KQ2	(MH "Appendectomy") AND (MH "Surgery, Laparoscopic+") AND (MH "Appendicitis"); Limiters - Published Date: 20100101-20201231; English Language; Research Article	44
CT.gov	uncomplicated AND (laparoscopic appendectomy) Appendicitis	13
Run 2 PubMed KQ2	((appendicitis[mh] OR appendicitis[tw]) AND ("Time Factors"[mh] OR "Time-to-Treatment"[mh] OR "Time-to-Treatment" [tw] OR "Time-to-Theater" [tw] OR "Time-to-Theatre" [tw] OR "Time to surgery" [tw] OR (diagnosis[tiab] AND surgery[tiab]) OR delay[tiab]) AND (acute[tw] OR simple[tw] OR uncomplicated[tw]) AND (appendectomy[mh] OR appendectomy[tw] OR appendectomies[tw] OR appendicectomies[tw] OR appendicectomy[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR (complicated[title] NOT uncomplicated[title]) OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1965/01/01"[CRDT] : "2020/08/01"[CRDT]))	41
Run 2 Embase KQ2	('appendicitis'/exp OR appendicitis) AND ('therapy delay'/exp OR 'therapy delay' OR 'time to surgery'/exp OR 'time to surgery' OR 'time to treatment'/exp OR 'time to treatment') AND ('appendectomy'/exp OR appendectomy) AND ('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2020-2022]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	13
CINAHL KQ2	(MH "Appendectomy") AND (MH "Surgery, Laparoscopic+") AND (MH "Appendicitis"); Limiters - Published Date: 20100701-20201231; English Language;	14
Run 2 Cochrane KQ2	((appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) OR [Anti-Bacterial Agents]:MH) AND (appendicitis):ti,ab,kw AND (uncomplicated):ti,ab,kw; with Cochrane Library publication date from Jul 2020 to Dec 2022	9
CT.gov	uncomplicated AND (laparoscopic appendectomy) Appendicitis	17
KQ2 First Run SEARCH RESULTS	Total records identified by database searches	286
	Additional records located by handsearching	17
	Total trials identified in searches	17
	Total duplicates identified	4
	Total records added to First Run for screening	282
	Number of records identified for KKQ2 after First Run screening	51
KQ2 Run 2 SEARCH RESULTS	Total records identified by database searches	94
	Additional records located by handsearching	22
	Total trials located	19
	Total duplicates identified	13
	Total records screened (including records identified in First Run)	135
Summary	Total database records	380
	Total handsearched records	39

5. In patients undergoing appendectomy for perforated appendicitis, should suction and lavage versus suction alone be used?

First Run PubMed KQ7	((appendicitis[tw] OR appendicitis[mh]) AND (Intestinal Perforation[mh] OR Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw] OR Acute[tw]) AND (appendectomy[mh] OR appendectomy[tw] OR appendectomies[tw] OR appendicectomies[tw] OR appendicectomy[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw]) AND ("Therapeutic Irrigation"[mh] OR Lavage[tw] OR suction[tw] OR irrigation[tw] OR Drainage[mh]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1905/01/01"[PDAT] : "2009/12/31"[PDAT]))	57
First Run Embase KQ7	('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('appendectomy'/exp OR appendectomy)AND ('suction'/exp OR suction OR 'lavage'/exp OR lavage) AND ('appendicitis'/exp OR appendicitis) AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2010-2020]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	28
First Run Cochrane KQ7	([therapeutic irrigation]:MH OR [peritoneal lavage]:MH OR [drainage]:MH OR (suction):ti,ab,kw OR (lavage):ti,ab,kw) AND (perforated):ti,ab,kw AND (appendicitis):ti,ab,kw AND (appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) ; 2010-2020	10
First Run CINAHL KQ7	(MH "Appendectomy") AND (MH "Surgery, Laparoscopic+") AND (MH "Appendicitis") AND ((MH "Gastric Lavage") OR (MH "Drainage+") OR (SU lavage) OR (SU drainage)); Published Date: 20100101-20221231	3
CT.gov	suction OR lavage Appendicitis	13
Run 2 PubMed KQ7	((appendicitis[tw] OR appendicitis[mh]) AND (Intestinal Perforation[mh] OR Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw] OR Acute[tw]) AND (appendectomy[mh] OR appendectomy[tw] OR appendectomies[tw] OR appendicectomies[tw] OR appendicectomy[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw]) AND ("Therapeutic Irrigation"[mh] OR Lavage[tw] OR suction[tw] OR irrigation[tw] OR Drainage[mh]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1965/01/01"[CRDT] : "2020/08/01"[CRDT]))	10
Run 2 Embase KQ7	('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('appendectomy'/exp OR appendectomy) AND ('suction'/exp OR suction OR 'lavage'/exp OR lavage) AND ('appendicitis'/exp OR appendicitis) AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2020-2022]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	9
Run 2 CINAHL KQ7	(MH "Appendectomy") AND (MH "Surgery, Laparoscopic+") AND (MH "Appendicitis") AND ((MH "Gastric Lavage") OR (MH "Drainage+") OR (SU lavage) OR (SU drainage)); Published Date: 20200701-20201231; English Language;	2

Run 2 Cochrane KQ7	[(therapeutic irrigation]:MH OR [peritoneal lavage]:MH OR [drainage]:MH OR (suction):ti,ab,kw OR (lavage):ti,ab,kw) AND (perforated):ti,ab,kw AND (appendicitis):ti,ab,kw AND (appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) ; with Cochrane Library publication date from Jul 2020 to Dec 2022	1
CT.gov	suction OR lavage Appendicitis	17
KKQ7 First Run SEARCH RESULTS	Total records identified by database searches	111
	Additional records located by handsearching	3
	Total trials identified in searches	15
	Total duplicates identified	7
	Total records added to First Run for screening	92
	Number of records identified for KKQ7 after First Run screening	24
KKQ7 Run 2 SEARCH RESULTS	Total records identified by database searches	39
	Additional records located by handsearching	8
	Total trials located	17
	Total duplicates identified	9
	Total records screened (including records identified in First Run)	45
Summary	Total database records	150
	Total handsearched records	11

6. In patients undergoing appendectomy for complicated appendicitis, should routine drain placement versus no routine drain placement be used?

First Run PubMed KQ8	((appendicitis[tw] OR appendicitis[mh]) AND (Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw] OR acute[tw]) AND ((appendectomy[mh] OR appendectomy[tw] OR appendectomies[tw] OR appendicectomies[tw] OR appendicectomy[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw])) AND ("Peritoneal Lavage"[mh] OR Lavage[tw] OR Drainage[mh] OR suction[tw] OR irrigation[tw] OR Aspiration[tw] OR drainage[tw] OR drainages[tw] OR drain[tw] OR drains[tw]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1905/01/01"[PDAT] : "2009/12/31"[PDAT]))	117
First Run Embase KQ8	('appendectomy'/exp OR appendectomy) AND ('laparoscopic surgery'/exp OR 'laparoscopic surgery') AND ('appendicitis'/exp OR appendicitis) AND ('drainage/aspiration system'/exp OR 'drainage/aspiration system' OR 'drainage tube'/exp OR 'drainage tube') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2010-2020]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	17
First Run Cochrane KQ8	(appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) AND (appendicitis):ti,ab,kw AND ((complicated):ti,ab,kw OR (perforated):ti,ab,kw) AND (drain):ti,ab,kw; 2010-2020	3
First Run CINAHL	(MH "Appendectomy") AND (MH "Surgery, Laparoscopic+") AND (MH "Appendicitis") AND TX drain; Limiters - Published Date: 20100101-20201231	4
CT.gov	drain AND laparoscopic Appendicitis	14

Run 2 PubMed KQ8	((appendicitis[tw] OR appendicitis[mh]) AND (Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw] OR acute[tw]) AND ((appendectomy[mh] OR appendectomy[tw] OR appendectomies[tw] OR appendicectomies[tw] OR appendicectomy[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw])) AND ("Peritoneal Lavage"[mh] OR Lavage[tw] OR Drainage[mh] OR suction[tw] OR irrigation[tw] OR Aspiration[tw] OR drainage[tw] OR drainages[tw] OR drain[tw] OR drains[tw]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1965/01/01"[CRDT] : "2020/08/01"[CRDT]))	30
Run 2 Embase KQ8	('appendectomy'/exp OR appendectomy) AND ('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('appendicitis'/exp OR appendicitis) AND ('drainage/aspiration system'/exp OR 'drainage/aspiration system' OR 'drainage tube'/exp OR 'drainage tube') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2020-2022]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	13
CINAHL KQ8	(MH "Appendectomy") AND (MH "Surgery, Laparoscopic+") AND (MH "Appendicitis") AND TX drain; Published Date: 20200701-20221231	2
Run 2 Cochrane KQ8	((appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) AND (appendicitis):ti,ab,kw AND ((complicated):ti,ab,kw OR (perforated):ti,ab,kw) AND (drain):ti,ab,kw; with Cochrane Library publication date from Jul 2020 to Dec 2022	2
CT.gov	drain AND laparoscopic Appendicitis	22
KQ8 First Run SEARCH RESULTS	Total records identified by database searches	155
	Additional records located by handsearching	3
	Total trials identified in searches	17
	Total duplicates identified	2
	Total records added to First Run for screening	139
	Number of records identified for KKQ1 after First Run screening	67
KQ8 Run 2 SEARCH RESULTS	Total records identified by database searches	69
	Additional records located by handsearching	12
	Total trials located	22
	Total duplicates identified	12
	Total records screened (including records identified in First Run)	114
Summary	Total database records	224
	Total handsearched records	15

7. Should patients who undergo appendectomy for complicated appendicitis be given postoperative antibiotics for ≤ 4 days versus > 4 days?

First Run PubMed KQ6	(("appendicitis"[mh] OR "appendicitis"[tw]) AND (Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw]) AND (ABX[tiab] OR ABX[ot] OR Antibiotic Prophylaxis[mh] OR ((postoperative[tw] OR postoperatively[tw] OR "post-operative"[tw] OR "post-operatively"[tw] OR "post-surgery"[tw] OR "post-surgical"[tw]) AND ("drug therapy"[sh] OR "administration and dosage"[sh] OR antibiotic[tw] OR antibiotics[tw] OR Anti-Bacterial Agents[mh] OR Anti-Bacterial Agents[pa]))) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1905/01/01"[PDAT] : "2009/12/31"[PDAT]))	209
First Run Embase KQ6	('appendicitis'/exp OR appendicitis) AND ('appendectomy'/exp OR appendectomy) AND ('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('appendectomy'/exp OR appendectomy) AND ('antibiotic agent'/exp OR 'antibiotic agent' OR 'antibiotic therapy'/exp OR 'antibiotic therapy') AND ('postoperative care'/exp OR 'postoperative care' OR 'perioperative period'/exp OR 'perioperative period' OR 'perioperative medicine'/exp OR 'perioperative medicine' OR 'postoperative period'/exp OR 'postoperative period') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2010-2020]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	56
Cochrane KQ6	(appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) AND (appendicitis):ti,ab,kw AND [Anti-Bacterial Agents]: MH; Publication: 2010-2020	19
First Run CINAHL KQ6	(MH "Appendicitis") AND ((MH "Antibiotics+") OR (MH "Drug Therapy+")) AND (MH "Appendectomy") AND (MH "Surgery, Laparoscopic+"); Limiters - Published Date: 20100101-20201231; English Language; Research Article	3
CT.gov	postoperative AND laparoscopic AND antibiotics Appendicitis	8
Run 2 PubMed KQ6	(("appendicitis"[mh] OR "appendicitis"[tw]) AND (Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw]) AND (ABX[tiab] OR ABX[ot] OR Antibiotic Prophylaxis[mh] OR ((postoperative[tw] OR postoperatively[tw] OR "post-operative"[tw] OR "post-operatively"[tw] OR "post-surgery"[tw] OR "post-surgical"[tw]) AND ("drug therapy"[sh] OR "administration and dosage"[sh] OR antibiotic[tw] OR antibiotics[tw] OR Anti-Bacterial Agents[mh] OR Anti-Bacterial Agents[pa]))) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND english[la]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR porcine[tiab] OR ("1965/01/01"[CRDT] : "2020/08/01"[CRDT]))	37
Run 2 Embase KQ6	('appendicitis'/exp OR appendicitis) AND ('appendectomy'/exp OR appendectomy) AND ('laparoscopic surgery'/exp OR 'laparoscopic surgery' OR 'laparoscopy'/exp OR laparoscopy) AND ('appendectomy'/exp OR appendectomy) AND ('antibiotic agent'/exp OR 'antibiotic agent' OR 'antibiotic therapy'/exp OR 'antibiotic therapy') AND ('postoperative care'/exp OR 'postoperative care' OR 'perioperative period'/exp OR 'perioperative period' OR 'perioperative medicine'/exp OR 'perioperative medicine' OR 'postoperative period'/exp OR 'postoperative period') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta	23

	analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2020-2022]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	
Run 2 CINAHL KQ6	(MH "Appendicitis") AND ((MH "Antibiotics+") OR (MH "Drug Therapy+")) AND (MH "Appendectomy") AND (MH "Surgery, Laparoscopic+"); Published Date: 20200701-20201231; English Language;	0
Run 2 Cochrane KQ6	(appendectomy):ti,ab,kw AND (("laparoscopic"):ti,ab,kw OR [Laparoscopy]:MH) AND (appendicitis):ti,ab,kw AND [Anti-Bacterial Agents]: MH; with Cochrane Library publication date from Jul 2020 to Dec 2022	4
CT.gov	postoperative AND laparoscopic AND antibiotics Appendicitis	12
KQ6 First Run SEARCH RESULTS	Total records identified by database searches	295
	Additional records located by handsearching	15
	Total trials identified in searches	18
	Total duplicates identified	5
	Total records added to First Run for screening	287
	Number of records identified for KQ6 after First Run screening	69
KQ6 Run 2 SEARCH RESULTS	Total records identified by database searches	76
	Additional records located by handsearching	28
	Total trials located	12
	Total duplicates identified	27
	Total records screened (including records identified in First Run)	134
Summary	Total database records	371
	Total handsearched records	43

8. In asymptomatic patients with previous complicated appendicitis treated nonoperatively, should an interval appendectomy be performed versus observation?

First Run PubMed KQ5	((appendicitis[tw] OR appendicitis[mh]) AND (Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw]) AND (nonoperative[tw] OR nonoperatively[tw] OR "drug therapy"[sh] OR "administration and dosage"[sh] OR "medical treatment"[tw] OR antibiotic[tw] OR antibiotics[tw] OR observation[tiab] OR Anti-Bacterial Agents[mh] OR Anti-Bacterial Agents[pa] OR ("interval surgery"[tw] OR "interval surgeries"[tw] OR "interval total"[tw] OR "interval laparoscopic"[tw] OR "laparoscopic interval"[tw] OR "interval laparoscopy"[tw] OR "interval appendectomy"[tw] OR "interval appendectomies" [tw] OR "interval appendicectomy"[tw] OR "interval operations"[tw] OR "interval operation"[tw] OR "interval resection"[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw])) OR conservative[tw]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND English[lang]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR dog[tiab] OR dogs[tiab] OR porcine[tiab]) OR ("1905/01/01"[PDAT] : "2009/12/31"[PDAT]))	477
First Run Embase KQ5	('complicated appendicitis'/exp OR 'complicated appendicitis' OR ('appendicitis'/exp OR appendicitis) AND complicated) OR 'appendix perforation'/exp OR 'appendix perforation') AND ('interval appendectomy'/exp OR 'interval appendectomy' OR 'antibiotic agent'/exp OR 'antibiotic agent' OR 'antibiotic therapy'/exp OR 'antibiotic	449

	therapy' OR 'conservative treatment'/exp OR 'conservative treatment' OR 'drug therapy'/exp OR 'drug therapy') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2010-2020]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	
First Run Cochrane KQ5	(appendicitis):ti,ab,kw AND ([Anti-Bacterial Agents]: MH OR [Conservative Treatment]: MH OR (interval appendectomy)) AND ((complicated):ti,ab,kw OR (perforated):ti,ab,kw) NOT (uncomplicated);ti; 2010-2020	57
First Run CINAHL KQ5	(MH "Appendicitis") AND ((MH "Antibiotics+") OR (MH "Drug Therapy+") OR ((TX interval) AND (MH "Surgery, Laparoscopic+") AND (MH "Appendectomy"))) NOT (TX uncomplicated); Limiters - Published Date: 20100101-20201231; English Language; Research Article	69
CT.gov KQ5	(Complicated OR abscess OR perforated OR phlegmon OR gangrenous) AND antibiotics Appendicitis	57
Run 2 PubMed KQ5	((appendicitis[tw] OR appendicitis[mh]) AND (Complicated[tw] OR abscess[tw] OR perforated[tw] OR phlegmon[tw] OR gangrenous[tw]) AND (nonoperative[tw] OR nonoperatively[tw] OR "drug therapy"[sh] OR "administration and dosage"[sh] OR "medical treatment"[tw] OR antibiotic[tw] OR antibiotics[tw] OR observation[tiab] OR Anti-Bacterial Agents[mh] OR Anti-Bacterial Agents[pa] OR ("interval surgery"[tw] OR "interval surgeries"[tw] OR "interval total"[tw] OR "interval laparoscopic"[tw] OR "laparoscopic interval"[tw] OR "interval laparoscopy"[tw] OR "interval appendectomy"[tw] OR "interval appendectomies" [tw] OR "interval appendicectomy"[tw] OR "interval operations"[tw] OR "interval operation"[tw] OR "interval resection"[tw]) AND (laparoscopy[mh] OR laparoscopic[tw] OR laparoscopy[tw])) OR conservative[tw]) AND ("Clinical Study"[pt] OR "Comparative Study"[pt] OR "Epidemiologic studies" [mh] OR "Evaluation Study"[pt] OR "Meta-Analysis"[pt] OR "Multicenter Study"[pt] OR "Systematic Review"[pt] OR "Validation Study" [pt] OR randomized[tiab] OR analysis[tiab] OR study[tiab] OR studies [tiab] OR "Practice Guideline"[pt] OR "practice guidelines as topic"[mh] OR guideline[title] OR guidelines[title]) AND English[lang]) NOT (Case reports[pt] OR "case report"[tw] OR ("animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR rats[tiab] OR dog[tiab] OR dogs[tiab] OR porcine[tiab] OR ("1965/01/01"[CRDT] : "2020/08/01"[CRDT]))	130
Run 2 Embase KQ5	('complicated appendicitis'/exp OR 'complicated appendicitis' OR ('appendicitis'/exp OR appendicitis) AND complicated) OR 'appendix perforation'/exp OR 'appendix perforation') AND ('interval appendectomy'/exp OR 'interval appendectomy' OR 'antibiotic agent'/exp OR 'antibiotic agent' OR 'antibiotic therapy'/exp OR 'antibiotic therapy' OR 'conservative treatment'/exp OR 'conservative treatment' OR 'drug therapy'/exp OR 'drug therapy') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim) AND [english]/lim AND [2020-2022]/py NOT ([conference abstract]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study' OR [animals]/lim)	185
Run 2 CINAHL KQ5	(MH "Appendicitis") AND ((MH "Antibiotics+") OR (MH "Drug Therapy+") OR ((TX interval) AND (MH "Surgery, Laparoscopic+") AND (MH "Appendectomy"))) NOT (TX uncomplicated); Published Date: 20200701-20201231; English Language;	43
Run 2 Cochrane KQ5	(appendicitis):ti,ab,kw AND ([Anti-Bacterial Agents]: MH OR [Conservative Treatment]: MH OR (interval appendectomy)) AND ((complicated):ti,ab,kw OR (perforated):ti,ab,kw) NOT (uncomplicated); with Cochrane Library publication date from Jul 2020 to Dec 2022	6
CT.gov KQ5	(Complicated OR abscess OR perforated OR phlegmon OR gangrenous) AND antibiotics Appendicitis	68
KQ5	Total records identified by database searches	1109
First Run	Additional records located by handsearching	22

SEARCH RESULTS	Total trials identified in searches	75
	Total duplicates identified	62
	Total records added to First Run for screening	994
	Number of records identified for KKQ5 after First Run screening	58
KQ5 Run 2 SEARCH RESULTS	Total records identified by database searches	432
	Additional records located by handsearching	37
	Total trials located	70
	Total duplicates identified	147
	Total records screened (including records identified in First Run)	310
Summary	Total database records	1541
	Total handsearched records	59