# **QUESTION**

Should nonoperative management vs. appendectomy be used for adult patients with acute, uncomplicated appendicitis?					
POPULATION:	adult patients with acute, uncomplicated appendicitis				
INTERVENTION:	nonoperative management				
COMPARISON:	appendectomy				
MAIN OUTCOMES:	Return to work; Length of stay; Length of stay (low risk of bias studies); Cost; Quality of life; Readmission; Death; Death; Postoperative abscess; New course of antibiotics; IR drain; Conversion to operative management or reoperation (all); Conversion to operative management or reoperation (short term); Conversion to operative management or reoperation (long term);				
SETTING:					
PERSPECTIVE:					
BACKGROUND:					
CONFLICT OF INTERESTS:					

<b>Problem</b> Is the problem a priorit	y?						
JUDGEMENT	RESEARCH EV	/IDENCE		ADDITIONAL CONSIDERATIONS			
<ul><li>○ No</li><li>○ Probably no</li><li>○ Probably yes</li><li>• Yes</li><li>○ Varies</li><li>○ Don't know</li></ul>							
Desirable Effe		ed effects?					
JUDGEMENT	RESEARCH EV	/IDENCE					ADDITIONAL CONSIDERATIONS
o Trivial						Small 100%	
• Small o Moderate o Large	Outcomes	participants the evi	Certainty of the evidence	the evidence effect	Anticipated absolute effects* (95% CI)		
o Varies o Don't know		(studies) Follow-up	(GRADE)	(95% CI)	Risk with appendectomy	Risk difference with nonoperative management	
	Return to work	1411 (4 RCTs)	⊕⊕⊕⊕ High	-	The mean return to work was <b>0</b>	MD <b>1.78 lower</b> (3.48 lower to 0.08 lower)	
	Cost	180 (1 RCT)	⊕⊕⊕⊕ High	-	The mean cost was <b>0</b>	SMD 1.01 lower (1.32 lower to 0.7 lower)	
	Quality of life	1347 (1 RCT)	⊕⊕⊕⊖ Moderate <sup>a</sup>	-	The mean quality of life was <b>0</b>	SMD 0.08 higher (0.03 lower to 0.18 higher)	
					Study population	1	

				OR 0.87 (0.05 to 15.28)	71 per 1,000	<b>9 fewer per 1,000</b> (68 fewer to 469 more)	
	for s	confidence significance optimal pov		his outco	me crosses th	e threshold	
Undesirable Effe How substantial are the ur		d effects?					
JUDGEMENT	RESEARCH EVID	ENCE					ADDITIONAL CONSIDERATIONS
• Large o Moderate o Small	Outcomes	Nº of	Certainty of	Relative	Anticipated abs	solute effects*	large 100%
o Trivial		participants (studies)		effect (95%	(95% CI)		
o Varies o Don't know		(studies) Follow-up	(GIADL)	CI)	Risk with appendectomy	Risk difference with nonoperative management	
	Length of stay (low risk of bias studies)	1691 (4 RCTs)	⊕⊕⊕○ Moderate <sup>a</sup>	-	The mean length of stay (low risk of bias studies) was <b>0</b>	MD <b>0.3</b> higher (0.5 lower to 1.11 higher)	
	Readmission	1428 (2 RCTs)	⊕⊕⊕⊕ High	OR 6.10 (4.21 to 8.84)	Study population	n	
					53 per 1,000	201 more per 1,000 (137 more to 277 more)	
	Postoperative	399	Overy low <sup>a,d,e</sup>	OR 1.91	Study population	n	
	abscess	(3 RCTs)		(0.38 to 9.50)	10 per 1,000	9 more per 1,000 (6 fewer to 78 more)	
	IR drain	1332 (1 PCT)	⊕⊕⊕⊜ Moderate <sup>d</sup>	OR 4.02 (1.66 to	Study population	n	
		(1 RCT)		9.71)	5 per 1,000	14 more per 1,000 (3 more to 38 more)	
	Conversion to	381	$\oplus \oplus \oplus \oplus$	OR	Study populatio	n	
	operative management or reoperation (all)	(4 RCTs) Highe	High <sup>e</sup>	20.09 (5.39 to 74.90)	5 per 1,000	91 more per 1,000 (22 more to 279 more)	
	Conversion to	41	ФФОО	OR	Study population	n	
	operative management or reoperation (short term)	(1 RCT)	Low <sup>a,d</sup>	13.06 (0.66 to 260.45)	0 per 1,000	0 fewer per 1,000 (0 fewer to 0 fewer)	
					Study populatio	n	

	⊕⊕⊕⊕ 3 Highe (5	OR 30.37 (5.77 to 159.77)	6 per 1,000	<b>159 more per</b> <b>1,000</b> (30 more to 504 more)
--	--------------------	------------------------------------	-------------	---

- a. The confidence interval for this outcome crosses the threshold for significance.
- The studies contributing to this outcome were very inconsistent, with non overlapping confidence intervals and opposing estimates of harm or benefit.
- c. The studies contributing to this outcome were at high risk of bias on the Newcastle-Ottawa scale due to concerns over the comparability of the two groups.
- d. Suboptimal power.
- This outcome included a study at high risk of bias on the Cochrane Risk of Bias tool due to concerns over their reporting of outcomes.

#### **Certainty of evidence**

What is the overall certainty of the evidence of effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Very low • Low o Moderate		Low 100%
o High o No included studies		

#### **Values**

Is there important uncertainty about or variability in how much people value the main outcomes?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or variability		Possibly important uncertainty or
Possibly important		variability 100%
o Probably no important		
uncertainty or variability  O No important uncertainty		
or variability		

#### **Balance of effects**

Does the balance between desirable and undesirable effects favor the intervention or the comparison?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
JODGEWIENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS

• Favors the comparison O Probably favors the comparison O Does not favor either the intervention or the comparison O Probably favors the intervention O Favors the intervention O Varies O Don't know		Favors the comparison 100%
Acceptability Is the intervention acceptable	e to key stakeholders?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
O No O Probably no ■ Probably yes O Yes O Varies O Don't know		Probably yes 100%
Feasibility Is the intervention feasible to	implement?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no ■ Probably yes o Yes o Varies o Don't know		Probably yes 100%

# **SUMMARY OF JUDGEMENTS**

	JUDGEMENT						
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability			
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know

#### TYPE OF RECOMMENDATION

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	•	0	0	0

#### **CONCLUSIONS**

_							•	
ĸ	AC	กห	۱m	Or	nd	21	ioi	1

#### **Justification**

#### **Subgroup considerations**

Immunocompromised patients, pregnant patients, patients with poor access to care (insurance, rural vs urban, distance), presence of fecalith on imaging, IBD patients, recurrent appendicitis, geriatric patients, patients at higher risk for operative management, morbidly obese

#### **Implementation considerations**

## **Monitoring and evaluation**

#### **Research priorities**

longer term studies – long term outcome data prioritizing quality of life studies

# **REFERENCES SUMMARY**

# **QUESTION**

Should nonoperative management vs. appendectomy be used for pediatric patients with acute, uncomplicated appendicitis?					
POPULATION:	pediatric patients with acute, uncomplicated appendicitis				
INTERVENTION:	nonoperative management				
COMPARISON:	appendectomy				
MAIN OUTCOMES:	Return to school; Length of stay; Cost; Quality of life; Readmission; Death; ICU admission; New/postoperative abscess; New course of antibiotics; IR drain; Conversion to operative management/reoperation (all); Conversion to operative management/reoperation (short term); Conversion to operative management/reoperation (long term);				
SETTING:					
PERSPECTIVE:					
BACKGROUND:					
CONFLICT OF INTERESTS:					

ASSESSMEN	NT						
Problem Is the problem a prior	ority?						
JUDGEMENT	RESEARCH EVIDENCE	E					ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes							
<ul><li>Yes</li><li>Varies</li><li>Don't know</li></ul>							
Desirable Ef	<b>fects</b> the desirable anticipated	effects?					
JUDGEMENT	RESEARCH EVIDENCE	RESEARCH EVIDENCE					
o Trivial							Small 100%
• Small • Moderate • Large	Outcomes	Nº of participants	Certainty of the evidence (GRADE)	Relative effect (95% CI)	Anticipated absolute effects* (95% CI)		
o Varies o Don't know		(studies) Follow-up			Risk with appendectomy	Risk difference with nonoperative management	
	Return to school	39 (1 RCT)	⊕○○○ Very low <sup>a,b,c</sup>	-	The mean return to school was <b>0</b>	MD <b>2 lower</b> (6.19 lower to 2.19 higher)	
	Cost	50 (1 RCT)	⊕⊕⊖⊖ Low <sup>a,b</sup>	-	The mean cost was <b>0</b>	SMD <b>0.02 lower</b> (0.58 lower to 0.53 higher)	
	ICU admission				Study population		

	44 (1 observational study)	⊕⊖⊖⊖ Very low <sup>a,b,d</sup>	OR 0.24 (0.01 to 6.28)	53 per 1,000	39 fewer per 1,000 (52 fewer to 206 more)
New/postoperative	284 ⊕○○○		OR 0.13	Study population	
abscess	(4 observational studies)	Very low <sup>a,b,d</sup>	(0.01 to 1.29)	21 per 1,000	18 fewer per 1,000 (21 fewer to 6 more)
IR drain	216	ФООО	OR 0.14	Study population	
	observational studies)	Very low <sup>a,b,d</sup>	(0.00 to 6.82)	9 per 1,000	8 fewer per 1,000 (9 fewer to 49 more)

- a. Suboptimal sample size.
- b. This outcome's confidence interval is non-significant.
  c. This outcome included a study deemed at high risk of bias using the Cochrane Risk of Bias tool due to inadequate descriptions of study protocol.
- d. Nearly all the observational studies included were rated high risk of bias on the Newcastle Ottawa scale due to concerns over the comparability of the two groups.

#### **Undesirable Effects**

How substantial are the undesirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	RESEARCH EVIDENCE					
• Large o Moderate							Large 100%
o Small o Trivial	Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipated absolute effects* (95% CI)		
o Varies o Don't know		(studies) (GRADE) Follow-up		(95% CI)	Risk with appendectomy	Risk difference with nonoperative management	
	Length of stay	77146 (6 observational studies)	Very low <sup>a,b,c</sup>	-	The mean length of stay was <b>0</b>	MD 1.4 higher (0.61 lower to 3.41 higher)	
	Quality of life	194 (2 observational studies)	⊕⊖⊖⊖ Very low <sup>a,b,d</sup>	-	The mean quality of life was <b>0</b>	SMD 0.09 lower (0.71 lower to 0.53 higher)	
	Readmission	193 (4 RCTs)	⊕⊕⊕⊕ High <sup>e</sup>	OR 10.57 (2.30 to 48.69)	Study population		
					31 per 1,000	<b>220 more per 1,000</b> (37 more to 575 more)	
	Conversion to operative	100	$\oplus \oplus \oplus \oplus$	OR	Study population		
	management/reoperation (2 RCTs) High		High	38.31 (4.90 to 299.69)	0 per 1,000	0 fewer per 1,000	

						(0 fewer to 0 fewer)
Conversion to operative		100	$\oplus \oplus \oplus \oplus$	OR 5.89	Study population	1
(short te	ement/reoperation erm)	(2 RCTs)	High <sup>a,d</sup>	(0.66 to 52.28)	0 per 1,000	O fewer per 1,000 (0 fewer to 0 fewer)
	ion to operative	100	$\oplus \oplus \oplus \oplus$	OR	Study population	1
(long te	ement/reoperation rm)	(2 RCTs)	High <sup>d</sup>	22.71 (2.87 to 179.78)	0 per 1,000	O fewer per 1,000 (O fewer to O fewer)

- a. This outcome's confidence interval is non-significant.b. Nearly all the observational studies included were rated high risk of bias on the Newcastle Ottawa scale due to concerns over the comparability of the two groups.
- c. This outcome included studies with non-overlapping confidence intervals.
- d. Suboptimal sample size.
- e. This outcome included a study deemed at high risk of bias using the Cochrane Risk of Bias tool due to inadequate descriptions of study protocol.

#### **Certainty of evidence**

What is the overall certainty of the evidence of effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
• Very low o Low o Moderate o High o No included studies		

#### **Values**

Is there important uncertainty about or variability in how much people value the main outcomes?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or variability		Possibly important uncertainty or variability 100%
Possibly important uncertainty or variability     O Probably no important uncertainty or variability     O No important uncertainty uncertainty or variability		

#### **Balance of effects**

Does the balance between desirable and undesirable effects favor the intervention or the comparison?					
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS			
● Favors the comparison ○ Probably favors the comparison ○ Does not favor either the intervention or the comparison ○ Probably favors the intervention ○ Favors the intervention ○ Varies ○ Don't know		Favors the comparison 100%			
Acceptability Is the intervention acce	ptable to key stakeholders?				
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS			
o No o Probably no • Probably yes o Yes o Varies o Don't know		Probably yes 100%			
Feasibility Is the intervention feasi	ible to implement?				
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS			
o No o Probably no ● Probably yes o Yes o Varies o Don't know		Probably yes 100%			

# **SUMMARY OF JUDGEMENTS**

	JUDGEMENT						
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability			

	JUDGEMENT						
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know

#### TYPE OF RECOMMENDATION

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	•	0	0	0

#### **CONCLUSIONS**

Recommendati	

#### **Justification**

#### **Subgroup considerations**

Immunocompromised patients, pregnant patients, patients with poor access to care (insurance, rural vs urban, distance), presence of fecalith on imaging, IBD patients, recurrent appendicitis, geriatric patients, patients at higher risk for operative management, morbidly obese. Infants, young children

## Implementation considerations

## **Monitoring and evaluation**

# **Research priorities**

longer term studies – long term outcome data prioritizing quality of life studies

# **REFERENCES SUMMARY**

## **QUESTION**

Should nonoperative vs. operative management be used for adult patients with acute, complicated appendicitis?					
POPULATION:	adult patients with acute, complicated appendicitis				
INTERVENTION:	nonoperative				
COMPARISON:	operative management				
MAIN OUTCOMES:	Length of stay; Cost; Readmission; Death; ICU admission; New/postoperative abscess; Reoperation; Reintervention - IR drain;				
SETTING:					
PERSPECTIVE:					
BACKGROUND:					
CONFLICT OF INTERESTS:					

#### **ASSESSMENT**

ASSESSIVILIVI										
<b>Problem</b> Is the problem a priority?										
JUDGEMENT	RESEARCH E	VIDENCE					ADDITIONAL CONSIDERATIONS			
o No o Probably no o Probably yes ● Yes o Varies o Don't know										
Desirable Effect How substantial are the c		ated effects?								
JUDGEMENT	RESEARCH E	VIDENCE					ADDITIONAL CONSIDERATIONS			
• Trivial o Small							trivial 100%			
o Moderate o Large o Varies	Outcomes	№ of participants (studies) Follow-up	Certainty of the evidence (GRADE)	Relative effect (95% CI)	Anticipated absolute effects* (95% CI)					
o Don't know					Risk with operative management	Risk difference with nonoperative				
	ICU	183	ФООО	OR 0.16	Study population					
	admission	(1 observational study)	Very low <sup>a</sup>	(0.03 to 0.80)	100 per 1,000	83 fewer per 1,000 (97 fewer to 18 fewer)				
	a. Suboptimal sample size.									
Undesirable Effects How substantial are the undesirable anticipated effects?										
JUDGEMENT	RESEARCH E	VIDENCE					ADDITIONAL CONSIDERATIONS			

#### Large

- o Moderate
- o Small
- o Trivial
- o Varies
- o Don't know

large 100%

Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipated ab (95% CI)	osolute effects*	
	(studies) Follow-up	(GRADE)	(95% CI)	Risk with operative management	Risk difference with nonoperative	
Length of stay	60 (1 RCT)	⊕⊕⊕○ Moderate <sup>a</sup>	-	The mean length of stay was <b>0</b>	MD 1.12 higher (0.65 higher to 1.59 higher)	
Cost	305 (1 observational study)	⊕⊖⊖⊖ Very low <sup>a,b,c</sup>	-	The mean cost was <b>0</b>	MD <b>124</b> higher (9724.44 lower to 9972.44 higher)	
Readmission	60 (1 RCT)	⊕⊕⊕⊖ Moderate <sup>a</sup>	OR 10.55 (1.23 to 90.66)	Study population		
				33 per 1,000	233 more per 1,000 (7 more to 724 more)	
Death	60	ФФФО	OR 7.39	Study population		
	(1 RCT)	Moderate <sup>a</sup>	(0.15 to 372.38)	0 per 1,000	0 fewer per 1,000 (0 fewer to 0 fewer)	
New/postoperative	60	$\Theta\ThetaOO$	OR 3.27	Study population		
abscess	(1 RCT)	Low <sup>a,b</sup>	(0.77 to 13.83)	100 per 1,000	167 more per 1,000 (21 fewer to 506 more)	
Reoperation	60	ФФФО	OR	Study populati	on	
	(1 RCT) Woderate <sup>a</sup>		29.00 (3.49 to 241.13)	33 per 1,000	<b>467 more per</b> <b>1,000</b> (74 more to 859 more)	

- a. Suboptimal sample size.b. Non-significant confidence interval.
- This outcome was based on a study rated at high risk of bias on the Newcastle Ottawa scale due to concerns over the comparability of the two groups.

#### **Certainty of evidence**

What is the overall certainty of the evidence of effects?

JUDGEMENT RESEARCH EVIDENCE ADDITIONAL CONSIDERATIONS

• Very low o Low o Moderate o High o No included studies		very low 100%
Values Is there important uncertai	nty about or variability in how much people value the main outcomes?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or variability • Possibly important uncertainty or variability o Probably no important uncertainty or variability o No important uncertainty or variability		Possibly important uncertainty or variability 100%
Balance of effect Does the balance between	ts desirable and undesirable effects favor the intervention or the comparison?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
• Favors the comparison o Probably favors the comparison o Does not favor either the intervention or the comparison o Probably favors the intervention o Favors the intervention o Varies o Don't know		Favors the comparison 100%
Acceptability Is the intervention acceptal	ble to key stakeholders?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no ● Probably yes o Yes o Varies o Don't know		Probably yes 100%
Feasibility Is the intervention feasible	to implement?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no ● Probably yes o Yes o Varies		Probably yes 100%

## **SUMMARY OF JUDGEMENTS**

	JUDGEMENT							
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know	
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know	
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know	
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies	
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability				
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know	
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know	
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know	

#### **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	either the intervention or the	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	•	comparison	0	0

#### **CONCLUSIONS**

Recommendation

## Justification

malignancy rate

#### **Subgroup considerations**

Immunocompromised patients, pregnant patients, patients with poor access to care (insurance, rural vs urban, distance), presence of fecalith on imaging, IBD patients, recurrent appendicitis, geriatric patients, patients at higher risk for operative management, morbidly obese

Discrete abscess\*, longer duration of sx (>1wk) \* Cecal inflammation on admission imaging, septic patients

#### **Implementation considerations**

## **Monitoring and evaluation**

#### **Research priorities**

## **REFERENCES SUMMARY**

# **QUESTION**

Should nonoperative management vs. operative management be used for pediatric patients with acute, complicated appendicitis?						
POPULATION:	pediatric patients with acute, complicated appendicitis					
INTERVENTION:	nonoperative management					
COMPARISON:	operative management					
MAIN OUTCOMES:	Return to school; Length of stay; Cost; Quality of life; Readmission; Abscess; New course of antibiotics; Conversion to operative management/reoperation;					
SETTING:						
PERSPECTIVE:						
BACKGROUND:						
CONFLICT OF INTERESTS:						

#### **ASSESSMENT**

Problem Is the problem a priority	?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes • Yes o Varies o Don't know		
Desirable Effect How substantial are the	cts desirable anticipated effects?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Trivial o Small o Moderate o Large o Varies o Don't know		
Undesirable Ef How substantial are the	fects undesirable anticipated effects?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
• Large o Moderate o Small o Trivial o Varies o Don't know		large 100%

Appendix C - Evidence to Decision (EtDs) Tables

Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipated at (95% CI)	Anticipated absolute effects* (95% CI)		
	(studies) Follow-up	(GRADE)	(95% CI)	Risk with operative management	Risk difference with nonoperative management		
Return to school	131 (1 RCT)	⊕⊕⊕○ Moderate <sup>a</sup>	-	The mean return to school was <b>0</b>	MD <b>5.6</b> higher (2.82 higher to 8.38 higher)		
Length of stay	171 (2 RCTs)	⊕⊕⊜⊖ Low <sup>a,b</sup>	-	The mean length of stay was <b>0</b>	MD 1.2 higher (1.16 lower to 3.56 higher)		
Cost	131 (1 RCT)	⊕⊕⊖⊖ Low <sup>a,b</sup>	-	The mean cost was <b>0</b>	MD <b>4929</b> higher (567.98 lower to 10425.98 higher)		
Quality of life	40 (1 RCT)	e Cowa,c	-	The mean quality of life was <b>0</b>	SMD 2.88 lower (3.79 lower to 1.97 lower)		
Readmission	131	$\Theta\Theta\Theta$	OR 5.39	Study population			
	(1 RCT)	Moderate <sup>a</sup>	(1.89 to 15.37)	78 per 1,000	235 more per 1,000 (60 more to 488 more)		
Abscess	171	$\oplus \oplus \oplus \oplus$	OR 2.23	Study populati	on		
	(2 RCTs)	High <sup>a</sup>	(1.10 to 4.50)	190 per 1,000	154 more per 1,000 (15 more to 324 more)		
New course of antibiotics	316	ФООО	OR 2.42	Study populati	on		
	(1 observational study)	Very low <sup>a,d</sup>	(1.01 to 5.84)	48 per 1,000	60 more per 1,000 (0 fewer to 178 more)		
Conversion to operative	40	<b>000</b>	OR	Study populati	on		
management/reoperation	(1 RCT)	Low <sup>a,b</sup>	11.18 (0.56 to 222.98)	0 per 1,000	0 fewer per 1,000 (0 fewer to 0 fewer)		

- a. Suboptimal sample size.
  b. This outcome's confidence interval is non-significant.
  c. This outcome included an RCT where the two groups had statistically significant differences at baseline, raising concerns about the randomization process.

	d. This outcome included studies rated high or unclear risk of bias on the Newcastle Ottawa scale due to concerns about the comparability of the two groups.	
Certainty of ev What is the overall certa	idence inty of the evidence of effects?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Very low ■ Low O Moderate O High O No included studies		Low 100%
Values Is there important uncer	tainty about or variability in how much people value the main outcomes?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or		Possibly important uncertainty
variability  Possibly important uncertainty or variability O Probably no important uncertainty or variability o No important uncertaint uncertainty or variability variability		or variability 100%
variability  • Possibly important uncertainty or variability • Probably no important uncertainty or variability • No important uncertainty or variability  Balance of effects	ects en desirable and undesirable effects favor the intervention or the comparison?	
variability  • Possibly important uncertainty or variability • Probably no important uncertainty or variability • No important uncertainty or variability  Balance of effects		

Acceptability Is the intervention acceptable to key stakeholders?					
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS			
<ul> <li>○ No</li> <li>○ Probably no</li> <li>● Probably yes</li> <li>○ Yes</li> <li>○ Varies</li> <li>○ Don't know</li> </ul>		Probably yes 100%			
Feasibility Is the intervention fea	sible to implement?				
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS			
o No o Probably no ● Probably yes o Yes o Varies o Don't know		Probably yes 100%			

#### **SUMMARY OF JUDGEMENTS**

	JUDGEMENT							
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know	
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know	
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know	
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies	
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability				
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know	
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know	
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know	

## **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	•	0	0	0

#### **CONCLUSIONS**

Recommendation
Justification
Subgroup considerations
Immunocompromised patients, pregnant patients, patients with poor access to care (insurance, rural vs urban, distance), presence of fecalith on imaging, IBD patients, recurrent appendicitis, geriatric patients, patients at higher risk for operative management, morbidly obese
Discrete abscess*, longer duration of sx (>1wk) Cecal inflammation on admission imaging, septic patients
Implementation considerations
Monitoring and evaluation
Research priorities

# REFERENCES SUMMARY QUESTION

	on >12 hours after diagnosis vs. operation <12 hours after diagnosis be used for patients cated appendicitis undergoing appendectomy?
POPULATION:	patients with uncomplicated appendicitis undergoing appendectomy
INTERVENTION:	operation >12 hours after diagnosis
COMPARISON:	operation <12 hours after diagnosis
MAIN OUTCOMES:	Length of hospital stay; Abscess; Readmission; Reoperation; Drain placement;
SETTING:	
PERSPECTIVE:	
BACKGROUND:	
CONFLICT OF INTERESTS:	

#### **ASSESSMENT**

<b>Problem</b> Is the problem a priority?							
JUDGEMENT	RESEARCH EVI	DENCE					ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes • Yes o Varies o Don't know							
Desirable Effect How substantial are the de		ects?					
JUDGEMENT	RESEARCH EVI	DENCE					ADDITIONAL CONSIDERATIONS
• Trivial o Small o Moderate o Large	Outcomes	Nº of participants	Certainty of the evidence				
o Varies o Don't know		(studies) Follow-up	(GRADE)	(95% CI)	Risk with operation <12 hours after diagnosis	Risk difference with operation >12 hours after diagnosis	
	Reoperation	2559	ФООО	OR 0.93	Study population		
		(1 observational study)	Very low <sup>a,b</sup>	(0.61 to 1.42)	36 per 1,000	2 fewer per 1,000 (14 fewer to 14 more)	
	Drain	863	ФООО	OR 0.73	Study popu	ılation	
	placement	(1 observational study)	Very low <sup>a,b,c</sup>	(0.31 to 1.74)	35 per 1,000	9 fewer per 1,000	

					(24 fewer to 25 more)
--	--	--	--	--	-----------------------------

- The confidence interval for this outcome is nonsignificant.
- b. The fragility index of this outcome is 0.
- c. This outcome contained studies that were rated high risk of bias on the Newcastle Ottawa scale due to comparability of the intervention and comparison arms.

#### **Undesirable** Effects How substantial are the undesirable anticipated effects? JUDGEMENT RESEARCH EVIDENCE ADDITIONAL CONSIDERATIONS Trivial o Small o Moderate Outcomes Nº of Certainty of Relative Anticipated absolute participants the evidence effect effects\* (95% CI) o Large (GRADE) (95% o Varies (studies) Risk with Risk o Don't know Follow-up CI) difference operation <12 with hours operation after >12 hours diagnosis after diagnosis Length of 7181 The mean MD 0.59 $\Theta$ higher hospital stay length of Very low<sup>a</sup> observational hospital (0.17 studies) stay was higher to 1 higher) Abscess 10432 OR 1.41 Study population ФООО (0.90 to (8 Very low<sup>a</sup> 16 per 7 more observational 2.21) 1,000 per 1,000 studies) (2 fewer to 19 more) Readmission 5968 OR 1.08 Study population $\Theta$ (0.69 to Very low<sup>a,b</sup> observational 14 per 1 more 1.70) per 1,000 1,000 studies) (4 fewer to 9

a. This outcome contained studies that were rated high risk of bias on the Newcastle Ottawa scale due to comparability of the intervention and comparison arms.

more)

 The confidence interval for this outcome is nonsignificant.

#### **Certainty of evidence**

What is the overall certainty of the evidence of effects?

JUDGEMENT RESEARCH EVIDENCE ADDITIONAL CONSIDERATIONS

• Very low o Low o Moderate o High o No included studies		
Values Is there important uncertainty al	pout or variability in how much people value the main outcomes?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty or variability		
Balance of effects  Does the balance between desira	able and undesirable effects favor the intervention or the comparison?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Favors the comparison o Probably favors the comparison  ■ Does not favor either the intervention or the comparison o Probably favors the intervention o Favors the intervention o Varies o Don't know		
Acceptability Is the intervention acceptable to	key stakeholders?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no ● Probably yes o Yes o Varies o Don't know		
Feasibility Is the intervention feasible to imp	plement?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes • Yes o Varies		

O Don't know		
--------------	--	--

## **SUMMARY OF JUDGEMENTS**

			JL	JDGEMENT			
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability			
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know

#### **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	0	•	0	0

#### **CONCLUSIONS**

Recommendation

Justification

**Subgroup considerations** 

Immunocompromised patients

## Implementation considerations

OR through put may justify doing the case overnight if there is no availability during the following day. Upper limit of waiting -

## **Monitoring and evaluation**

Upper limit of waiting -

## **Research priorities**

# REFERENCES SUMMARY QUESTION

	on >12 hours from diagnosis vs. operation <12 hours from diagnosis be used for pediatric ncomplicated appendicitis undergoing appendectomy?
POPULATION:	pediatric patients with uncomplicated appendicitis undergoing appendectomy
INTERVENTION:	operation >12 hours from diagnosis
COMPARISON:	operation <12 hours from diagnosis
MAIN OUTCOMES:	Abscess; Readmission; Reoperation;
SETTING:	
PERSPECTIVE:	
BACKGROUND:	
CONFLICT OF INTERESTS:	

## **ASSESSMENT**

Problem Is the problem a priority?							
JUDGEMENT	RESEARCH EVI	DENCE					ADDITIONAL CONSIDERATIONS
O No O Probably no O Probably yes  Yes O Varies O Don't know							
Desirable Effects How substantial are the desirable	e anticipated eff	ects?					
JUDGEMENT	RESEARCH EVI	DENCE					ADDITIONAL CONSIDERATIONS
• Trivial o Small o Moderate o Large	Outcomes	№ of participants	Certainty of the evidence	Relative effect	Anticipate effects* (9		
O Varies O Don't know		(studies) Follow-up	(GRADE)	(95% CI)	Risk with operation <12 hours from diagnosis	Risk difference with operation >12 hours from diagnosis	
	Readmission	2756	ФООО	OR 0.66	Study popu	ulation	
		(1 observational study)	Very low <sup>d</sup>	(0.45 to 0.96)	51 per 1,000	17 fewer per 1,000 (27 fewer to 2 fewer)	
	risk	s outcome co c of bias on the nparability of	ne Newcastle	Ottawa	scale due	to	

- The studies contributing to this outcome had non-overlapping confidence intervals. This outcome had a fragility index of 0.
- d. This outcome contained studies that were rated high risk of bias on the Newcastle Ottawa scale due to comparability of the intervention and comparison arms.

UDGEMENT	RESEARCH EVI	DENCE					ADDITIONAL CONSIDERATIONS
) Trivial							
• Small • Moderate • Large	Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipate effects* (95		
Reoperation 2756 (1 obserstudy  Abscess 3004 (2 obserstud)  a. This out risk of b				Risk with operation <12 hours from diagnosis	Risk difference with operation >12 hours from diagnosis		
	Reoperation	2756	ФООО	OR 1.04	Study population		
	observational study)  Very low <sup>a,b,c</sup>	(0.45 to 2.41)	8 per 1,000	0 fewer per 1,000 (4 fewer to 11 more)			
	Abscess		ФООО	OR 2.60	Study population		
	observational studies)  Very low <sup>a,b,c</sup>		(0.05 to 127.83)	57 per 1,000	<b>79 more per 1,000</b> (54 fewer to 829 more)		
	risk con b. Thi	l unclear to on arms.					

#### **Certainty of evidence**

What is the overall certainty of the evidence of effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
• Very low		
o Low		
o Moderate		
o High		
No included studies		

Values Is there important uncertainty about	oout or variability in how much people value the main outcomes?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or variability o Possibly important uncertainty or variability		
<ul> <li>Probably no important uncertainty or variability</li> <li>No important uncertainty or variability</li> </ul>		
Balance of effects  Does the balance between desira	able and undesirable effects favor the intervention or the comparison?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Favors the comparison o Probably favors the comparison		
• Does not favor either the intervention or the comparison o Probably favors the intervention o Favors the intervention o Varies o Don't know		
Acceptability Is the intervention acceptable to	key stakeholders?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no • Probably yes o Yes o Varies o Don't know		
Feasibility Is the intervention feasible to imp	plement?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes • Yes o Varies o Don't know		

## **SUMMARY OF JUDGEMENTS**

	JUDGEMENT							
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know	
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know	
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know	

	JUDGEMENT									
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies			
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability						
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know			
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know			
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know			

#### **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	0	•	0	0

#### **CONCLUSIONS**

Recommendation

## Justification

# Subgroup considerations

Immunocompromised patients

## Implementation considerations

 ${\sf OR}\ through\ put\ may\ justify\ doing\ the\ case\ overnight\ if\ there\ is\ no\ availability\ during\ the\ following\ day.$ 

Upper limit of waiting

# Monitoring and evaluation

Upper limit of waiting

# Research priorities

# **REFERENCES SUMMARY**

# **QUESTION**

Should Suction and lavage vs. suction alone be used for adult patients undergoing appendectomy for complicated appendicitis?							
POPULATION:	adult patients undergoing appendectomy for perforated appendicitis						
INTERVENTION:	Suction and lavage						
COMPARISON:	suction alone						
MAIN OUTCOMES:	Organ space infection*; Postoperative drain placement; Hospital length of stay (LOS); Readmission; Reoperation*; Death*;						
SETTING:							
PERSPECTIVE:							
BACKGROUND:							
CONFLICT OF INTERESTS:							

<b>Problem</b> Is the problem a prio	rity?								
JUDGEMENT	RESEARCH EVIDENCE	RESEARCH EVIDENCE ADDITIONAL CO							
<ul> <li>No</li> <li>Probably no</li> <li>Probably yes</li> <li>Yes</li> <li>Varies</li> <li>Don't know</li> </ul>									
Desirable Eff How substantial are t	ects the desirable anticipated eff	ects?							
JUDGEMENT	RESEARCH EVIDENCE						ADDITIONAL CONSIDERATIONS		
o Trivial  • Small  o Moderate o Large o Varies o Don't know	Outcomes	Outcomes № of participants	(GRADE) (95%	Anticipated absolute effects* (95% CI)		83% Small 17% Large			
		(studies) Follow-up			Risk with suction alone	Risk difference with Suction and lavage			
	Hospital length of stay (LOS)	546 (2 RCTs)	⊕⊖⊖⊖ Very low, <sup>abc</sup>	-	The mean hospital lengh of stay (LOS) was <b>0</b>	MD 1.28 lower (3.32 lower to .76 higher)			
	Organ space	713	ФООО	RR 0.92	Study popu	lation			
	infection*	(4 RCTs)	Very low <sup>a,b,c</sup>	(0.41 to 2.06)	93 per 1,000	7 fewer per 1,000 (55 fewer to 98 more)			
	Death*				Study population				

	286 (1 RCT)	⊕○○○ Very low <sup>a,c,d</sup>	<b>RR 0.31</b> (0.02 to 6.39)	11 per 1,000	8 fewer per 1,000 (11 fewer to 62 more)	
	367	$\mathbf{m}(\mathcal{N}\mathcal{N})$	RR 0.90 (0.36 to 2.24)	Study population		
Readmission	(2 RCTs)	very low <sup>a,b,c</sup>		121 per 1,000	12 fewer per 1,000 (77 fewer to 150 more)	

- a. This outcome included a study rated at high risk of bias on the Cochrane Risk of Bias Tool due to inadequate description of the randomization process and ambiguity surrounding the number of patients lost to follow up.
- b. The papers contributing to this outcome had non-overlapping confidence intervals.
- c. This outcome's confidence interval is non-significant.
- d. This outcome's fragility index is 0.

#### **Undesirable Effects**

**Certainty of evidence** 

JUDGEMENT

What is the overall certainty of the evidence of effects?

RESEARCH EVIDENCE

How substantial are the undesirable anticipated effects?

JUDGEMENT	RESEARCH EVIDEN	ADDITIONAL CONSIDERATIONS					
o Large o Moderate							100% Small
• Small O Trivial O Varies O Don't know	Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipated absolute effects* (95% CI)		
		(studies) Follow-up	(GRADE)	(95% CI)	Risk with suction alone	Risk difference with Suction and lavage	
	Postoperative	453	ФООО	RR 1.11	Study popu	ılation	
	drain placement	(3 RCTs)	Very low <sup>a,b,c</sup>	(0.53 to 2.30)	50 per 1,000	6 more per 1,000 (24 fewer to 65 more)	
	Reoperation*		⊕⊖⊖⊖ Very low <sup>a,b,c</sup>	RR 1.68 (0.59 to 4.79)	Study population		
					31 per 1,000	21 more per 1,000 (13 fewer to 117 more)	
	a. This ou Cochra randon patient b. This ou c. This ou						

ADDITIONAL CONSIDERATIONS

• Very low o Low o Moderate o High o No included studies		100% Very low
Values Is there important uncert	ainty about or variability in how much people value the main outcomes?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty uncertainty or variability		87.5% Probably no important uncertainty or variability 12.5% Possibly important uncertainty or variability
Balance of effect Does the balance betwee	ts or desirable and undesirable effects favor the intervention or the comparison?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Favors the comparison o Probably favors the comparison  • Does not favor either the intervention or the comparison o Probably favors the intervention o Favors the intervention o Varies o Don't know		100% Does not favor either the intervention or the comparison
Acceptability Is the intervention accept	able to key stakeholders?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
O No O Probably no		87.5% Probably yes
<ul><li>Probably yes</li><li>Yes</li><li>Varies</li><li>Don't know</li></ul>		12.5% Yes
<ul><li>Probably yes</li><li>Yes</li><li>Varies</li></ul>	e to implement?	
• Probably yes o Yes o Varies o Don't know	e to implement?  RESEARCH EVIDENCE	
<ul> <li>Probably yes</li> <li>O Yes</li> <li>O Varies</li> <li>O Don't know</li> </ul> Feasibility Is the intervention feasible		12.5% Yes

o Varies	
o Don't know	

#### **SUMMARY OF JUDGEMENTS**

	JUDGEMENT							
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know	
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know	
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know	
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies	
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability				
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know	
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know	
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know	

#### **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	0	•	0	0

#### **CONCLUSIONS**

Recommendation

Justification

# **Subgroup considerations**

Pus in all 4 quadrants, immunocompromised patients

## Implementation considerations

Volume of irrigation fluid used, antibiotic irrigation/type of irrigation

## **Monitoring and evaluation**

## **Research priorities**

standardized irrigation technique in future randomized studies

## **REFERENCES SUMMARY**

## **QUESTION**

Should Suction complicated a	on and lavage vs. suction alone be used for pediatric patients undergoing appendectomy for appendicitis?
POPULATION:	pediatric patients undergoing appendectomy for perforated appendicitis
INTERVENTION:	Suction and lavage
COMPARISON:	suction alone
MAIN OUTCOMES:	Organ space infection*; Death*; Post operative drain placement; Hospital length of stay (LOS); Readmission; Reoperation*;
SETTING:	
PERSPECTIVE:	
BACKGROUND:	
CONFLICT OF INTERESTS:	

#### **ASSESSMENT**

ASSESSIVIENI							
<b>Problem</b> Is the problem a priority?							
JUDGEMENT	RESEARCH EVI	DENCE					ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes • Yes o Varies o Don't know							100% Yes
Desirable Effects How substantial are the desirable	anticipated effec	ts?					
JUDGEMENT	RESEARCH EVI	DENCE					ADDITIONAL CONSIDERATIONS
o Trivial  ● Small  o Moderate o Large o Varies o Don't know	Outcomes	№ of participants (studies)	Certainty of the evidence	Relative effect (95%	Anticipa absolute (95% CI)		85.7% Small 14.3% moderate
		Follow-up	(GRADE)	CI)	Risk with suction alone	Risk difference with Suction and lavage	
	Organ space	406	ФФОО	RR 0.92	Study po	pulation	
	infection*	(3 RCTs)	LOW <sup>a,b</sup>	(0.57 to 1.49)	144 per 1,000	11 fewer per 1,000 (62 fewer to 70 more)	
					Study po	pulation	

Post operative drain placement	320 (2 RCTs)	⊕⊕⊜⊖ Low <sup>a,b</sup>	RR 0.75 (0.37 to 1.53)	100 per 1,000	25 fewer per 1,000 (63 fewer to 53 more)	
Hospital length of stay (LOS)	320 (2 RCTs)	⊕⊕⊖⊖ Low <sup>a,c</sup>	-	The mean hospital length of stay (LOS) was <b>0</b>	MD <b>0.33</b> lower (0.97 lower to 0.32 higher)	
Readmission	(H)		RR 0.24	Study population		
	(2 RCTs)	Moderate <sup>a,b</sup>	(0.04 to 1.45)	38 per 1,000	28 fewer per 1,000 (36 fewer to 17 more)	

- This outcome has a non-significant confidence interval.
- b. This outcome has a fragility index of 0.
- c. N<400 with continuous variable.

#### **Undesirable Effects**

How substantial are the undesirable anticipated effects?

What is the overall certainty of the evidence of effects?

JUDGEMENT

RESEARCH EVIDENCE

JUDGEMENT	RESEARCH EVID	ENCE					ADDITIONAL CONSIDERATIONS
o Large o Moderate							100% Small
• Small o Trivial o Varies	Outcomes	№ of participants (studies)	Certainty of the evidence	effect (95%	Anticipa absolute (95% CI)	e effects*	
o Don't know		Follow-up	(GRADE)	CI)	Risk with suction alone	Risk difference with Suction and lavage	
	Reoperation*	1105	000	RR 2.57	Study po	pulation	
		(4 RC1s)	(4 RCTs) Moderate <sup>3,b</sup>		5 per 1,000	8 more per 1,000 (3 fewer to 63 more)	
Certainty of evidence	inte b. This	outcome harval.				ce	

ADDITIONAL CONSIDERATIONS

<ul><li> Very low</li><li> Low</li><li> Moderate</li><li> High</li><li> No included studies</li></ul>		100% Low
Values Is there important uncertainty abo	ut or variability in how much people value the main outcomes?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
O Important uncertainty or variability O Possibly important uncertainty or variability  Probably no important uncertainty or variability O No important uncertainty or variability variability		87.5% Probably no important uncertainty or variability 12.5% Possibly important uncertainty or variability
Balance of effects  Does the balance between desirab	le and undesirable effects favor the intervention or the comparison?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Favors the comparison o Probably favors the comparison • Does not favor either the intervention or the comparison o Probably favors the intervention o Favors the intervention o Varies o Don't know		100% Does not favor either the intervention or the comparison
Acceptability  Is the intervention acceptable to ke	ev stakeholders?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no ● Probably yes o Yes o Varies o Don't know		87.5% Probably yes 12.5% Yes
Feasibility Is the intervention feasible to imple	ement?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS

o Don't know
--------------

## **SUMMARY OF JUDGEMENTS**

			JL	JDGEMENT			
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability			
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know

### **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	0	•	0	0

#### **CONCLUSIONS**

Recommendation

**Justification** 

**Subgroup considerations** 

Pus in all 4 quadrants, immunocompromised patients

## Implementation considerations

Volume of irrigation fluid used, antibiotic irrigation/type of irrigation

## Monitoring and evaluation

## **Research priorities**

standardized irrigation technique in future randomized studies

## REFERENCES SUMMARY

## **QUESTION**

	e drain placement vs. no routine drain placement be used for adult patients undergoing y for complicated appendicitis?
POPULATION:	adult patients undergoing appendectomy for complicated appendicitis
INTERVENTION:	routine drain placement
COMPARISON:	no routine drain placement
MAIN OUTCOMES:	Organ space infection*; Required new course of antibiotics*; Postoperative drain placement/replacement*; Readmission; Reoperation*; Death*; Length of stay;
SETTING:	
PERSPECTIVE:	
BACKGROUND:	
CONFLICT OF INTERESTS:	

## **ASSESSMENT**

Problem Is the problem a priority?								
JUDGEMENT	RESEARCH EVIDENCE						ADDITIONAL CONSIDERATIONS	
O No O Probably no O Probably yes  Yes O Varies O Don't know							100% Yes	
Desirable Effects How substantial are the de	Susirable anticipated effects?							
JUDGEMENT	RESEARCH EVIDENCE						ADDITIONAL CONSIDERATIONS	
• Trivial • Small		I	Į.				83.3% Trivial	
O Moderate     O Large     O Varies	Outcomes	Nº of participants (studies)	the evidence (GRADE)	Relative effect (95% CI)		Anticipated effects* (95		
o Don't know		Follow-up	(210.02)					
		OR 0.88 Study population		lation				
	placement/replacement*	(3 observational studies)	Very low <sup>a,b,c</sup>	(0.25 to 3.10)	75 per 1,000	8 fewer per 1,000 (55 fewer to 126 more)		
	Length of stay	250 (2 observational studies)	⊕⊖⊖⊖ Very low <sup>a,c,d</sup>	-	The mean length of stay was <b>0</b>	8 fewer per 1,000 (55 fewer		

# to 126 more)

- a. This outcome has a non-significant confidence interval.
- b. This outcome has a fragility index of 0.
- c. This outcome included studies rated at high risk of bias on the Newcastle Ottawa scale due to concerns over the comparability of the two groups.
- d. This outcome is a continuous variable with n<400.

#### **Undesirable Effects**

How substantial are the undesirable anticipated effects?

JUDGEMENT	RESEARCH EVIDE	NCE					ADDITIONAL CONSIDERATIONS		
o Large ● Moderate							100% Moderate		
o Small o Trivial	Outcomes	Nº of participants	Certainty of the evidence (GRADE)	Relative effect	Anticipated al (95% CI)	osolute effects*			
o Varies o Don't know		(studies) Follow-up	(GKADE)	(95% CI)	Risk with no routine drain placement	Risk difference with routine drain placement			
	Organ space	1727	ФООО	OR 1.12	Study populati	ion			
	infection*	(6 observational studies)	Very low <sup>a,b,c</sup>	(0.77 to 1.63)	94 per 1,000	10 more per 1,000 (20 fewer to 50 more)			
	Required new course of	327 (2	ФООО	<b>OR 1.59</b> (0.66 to	Study populati	ion			
	antibiotics*	observational studies)	Very low <sup>a,b,c</sup>	3.82)	71 per 1,000	37 more per 1,000 (23 fewer to 154 more)			
	Readmission	991	ФООО	RR 1.28 (0.75 to 2.17)	Study populati	ion			
		(2 observational studies)	Very low <sup>a,b,c</sup>		١,	rv iowa,s,c ' '	58 per 1,000	16 more per 1,000 (15 fewer to 68 more)	
	Reoperation*	225 (1	ФООО	OR 1.78 Study population					
		observational study)	Very low <sup>b,c</sup>	(0.50 to 6.32)	41 per 1,000	30 more per 1,000 (20 fewer to 173 more)			
	New of the to	outcome include castle Ottawa se wo groups. outcome has a outcome has a	scale due to co non-significa	oncerns o	ver the comp	arability of			

#### **Certainty of evidence**

What is the overall certainty of the evidence of effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
• Very low O Low O Moderate O High O No included studies		100% Very low
Values Is there important uncertain	nty about or variability in how much people value the main outcomes?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty or variability uncertainty or variability		100% Probably no important uncertainty or variability
Balance of effect Does the balance between	ts desirable and undesirable effects favor the intervention or the comparison?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
Probably favors the comparison     Probably favors the comparison     Does not favor either the intervention or the comparison     Probably favors the		83.3% Probably favors the comparison 16.7% Favors the comparison
intervention O Favors the intervention O Varies O Don't know		
o Favors the intervention o Varies	ole to key stakeholders?	
o Favors the intervention o Varies o Don't know  Acceptability	ble to key stakeholders?  RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Favors the intervention o Varies o Don't know  Acceptability Is the intervention accepta		ADDITIONAL CONSIDERATIONS  83.3% Probably yes 16.7% Probably no
o Favors the intervention o Varies o Don't know  Acceptability Is the intervention accepta  JUDGEMENT  o No o Probably no • Probably yes o Yes o Varies	RESEARCH EVIDENCE	83.3% Probably yes
o Favors the intervention o Varies o Don't know  Acceptability Is the intervention accepta JUDGEMENT  o No o Probably no • Probably yes o Yes o Varies o Don't know  Feasibility	RESEARCH EVIDENCE	83.3% Probably yes

O Varies O Don't know	o Yes	o Yes	
O Don't know	o Varies	ວ Varies	
	O Don't know	ວ Don't know	

#### **SUMMARY OF JUDGEMENTS**

	JUDGEMENT								
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know		
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know		
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know		
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies		
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability					
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know		
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know		
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know		

## **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	•	0	0	0

#### **CONCLUSIONS**

Recommendation

**Justification** 

## Subgroup considerations

Immunosuppressed patients, antibiotic duration

## Implementation considerations

There could be other outcomes we did not look at, such as drains falling out post operatively

## **Monitoring and evaluation**

## **Research priorities**

Randomized controlled trials, standardizing the type and size of drain used, standardizing the type and duration of post operative antibiotic therapy

## REFERENCES SUMMARY

## **QUESTION**

Should routine drain placement vs. no routine drain placement be used for pediatric patients undergoing appendectomy for complicated appendicitis?								
POPULATION:	pediatric patients undergoing appendectomy for complicated appendicitis							
INTERVENTION:	routine drain placement							
COMPARISON:	no routine drain placement							
MAIN OUTCOMES:	Organ space infection*; Postoperative drain placement/replacement*; Readmission; Reoperation*;							
SETTING:								
PERSPECTIVE:								

#### **ASSESSMENT**

BACKGROUND: CONFLICT OF INTERESTS:

<b>Problem</b> Is the problem a priori	ty?						
JUDGEMENT	RESEARCH EVIDENCE						ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes • Yes o Varies o Don't know							100% Yes
Desirable Effe How substantial are th	ects ne desirable anticipated effects?						
JUDGEMENT	RESEARCH EVIDENCE						ADDITIONAL CONSIDERATIONS
<ul> <li>Trivial</li> <li>Small</li> <li>Moderate</li> <li>Large</li> <li>Varies</li> <li>Don't know</li> </ul>	Outcomes	№ of Certainty of participants the evidence		Relative effect (95%	Anticipated absolute effects* (95% CI)		83.3% Small 16.7% Moderate
		(studies) Follow-up	(GRADE)	CI)	Risk with no routine drain placement	with	
	Postoperative drain	379	ФООО	OR 0.57	Study popu	lation	
	placement/replacement*	(1 observational study)	Very low <sup>a</sup> (0.29 to 1.11)		147 per 1,000	<b>57 fewer per 1,000</b> (99 fewer to 14 more)	
	a. Fragility index	of 0 and no	n-significant	confiden	ce interval		

#### **Undesirable Effects** How substantial are the undesirable anticipated effects? JUDGEMENT RESEARCH EVIDENCE **ADDITIONAL CONSIDERATIONS** o Large 83.3% Moderate Moderate 16.7% Small Outcomes Nº of **Certainty of** Relative Anticipated absolute effects\* o Small o Trivial participants the evidence effect (95% CI) (GRADE) (95% CI) o Varies (studies) Risk Risk with no o Don't know Follow-up difference routine drain with routine placement drain placement 571 OR 2.01 Organ space Study population ФООО infection\* (2 (0.83 to Very low<sup>a,b,c</sup> 186 per 1,000 57 more per observational 4.87) 1,000 studies) (10 fewer to 187 more) Readmission 2141 OR 1.14 Study population ФООО (0.55 to Very low<sup>d</sup> observational 34 per 1,000 5 more per 2.40) 1,000 studies) (15 fewer to 44 more) Reoperation\* 2141 OR 2.04 Study population $\Theta\ThetaOO$ (1.06 to Low observational 3.94) 19 per 1,000 19 more per 1,000 studies) (1 more to 52 more) This outcome included a study rated at high risk of bias on the Newcastle Ottawa scale due to concerns over the comparability of the two groups. The studies contributing to this outcome had non-overlapping b. confidence intervals. Fragility index of 0. C. Non-significant confidence interval **Certainty of evidence** What is the overall certainty of the evidence of effects? JUDGEMENT RESEARCH EVIDENCE ADDITIONAL CONSIDERATIONS Very low 100% Very low o Low o Moderate o High o No included studies

#### **Values**

Is there important uncertainty about or variability in how much people value the main outcomes?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS								
o Important uncertainty or variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty or variability		100% Probably no important uncertainty or variability								
Balance of effects  Does the balance between desirable and undesirable effects favor the intervention or the comparison?										
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS								
O Favors the comparison Probably favors the comparison O Does not favor either the intervention or the comparison O Probably favors the intervention O Favors the intervention O Varies O Don't know		83.3% Probably favors the comparison 16.7% Favors the comparison								
Acceptability Is the intervention accepta	ble to key stakeholders?									
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS								
o No o Probably no ● Probably yes o Yes o Varies o Don't know		83.3% Probably yes 16.7% Probably no								
Feasibility Is the intervention feasible	to implement?									
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS								
o No o Probably no ● Probably yes o Yes o Varies o Don't know		83.3% Probably yes 16.7% Probably no								

## **SUMMARY OF JUDGEMENTS**

		JUDGEMENT							
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know		
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know		
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know		
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies		

		JUDGEMENT							
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability					
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know		
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know		
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know		

#### **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
Ο	•	0	0	Ο

#### **CONCLUSIONS**

Recommendation

## **Justification**

### **Subgroup considerations**

Immunosuppressed patients, antibiotic duration

## Implementation considerations

There could be other outcomes we did not look at, such as drains following out post operatively

## **Monitoring and evaluation**

## **Research priorities**

Randomized controlled trials, standardizing the type and size of drain used, standardizing the type and duration of post operative antibiotic therapy

## REFERENCES SUMMARY

## **QUESTION**

Should Short term postoperative antibiotics vs. long term post operative antibiotics be used for Adult patients undergoing appendectomy for complicated appendicitis?								
POPULATION:	Adult patients undergoing appendectomy for complicated appendicitis							
INTERVENTION:	Short term postoperative antibiotics							
COMPARISON:	long term post operative antibiotics							
MAIN OUTCOMES:	Organ space infection; Required new course of antibiotic; C diff infection; Postoperative drain placement; Hospital length of stay; Readmission; Reoperation; Total complications;							
SETTING:								
PERSPECTIVE:								
BACKGROUND:								
CONFLICT OF								

### **ASSESSMENT**

<b>Problem</b> Is the problem a priority	io.						
JUDGEMENT	RESEARCH EVID	ENCE					ADDITIONAL CONSIDERATIONS
O No O Probably no O Probably yes Yes Varies O Don't know							
Desirable Effect How substantial are the		ffects?					
JUDGEMENT	RESEARCH EVID	ENCE					ADDITIONAL CONSIDERATIONS
o Trivial o Small							Moderate 100%
• Moderate o Large o Varies o Don't know	Outcomes	Nº of participants	participants the evidence (GRADE)	Relative effect (95%	Anticipated absolute effects* (95% CI)		
		(studies) Follow-up		CI)	Risk with long term post operative antibiotics	Risk difference with Short term postoperative antibiotics	
	Organ space	80	ФООО	RR 0.63	Study population		
	infection*	Infection* (1 RCT) Very low <sup>a,b,c</sup> (0	(0.16 to 2.46)	122 per 1,000	45 fewer per 1,000 (102 fewer to 178 more)		
	C diff			RR 0.14	Study population		
	infection*	(2 observational studies)	Very low <sup>b,d</sup>	(0.01 to 2.59)	10 per 1,000	9 fewer per 1,000 (10 fewer to 15 more)	

Hospital length of stay	80 (1 RCT)	⊕⊕⊖⊖ Low <sup>a,c</sup>	-	The mean hospital length of stay was <b>0</b>	MD <b>0.9 lower</b> (1.65 lower to 0.15 lower)	
Reoperation*	$\Box$			Study popul	ation	
	observational studies)	(0.26 to 2.62)	98 per 1,000	16 fewer per 1,000 (70 fewer to 123 more)		
Total	80		RR 0.61 (0.27 to 1.40)	Study population		
complications	(1 RCT)			293 per 1,000	114 fewer per 1,000 (214 fewer to 117 more)	

- a. "Allocation to the short treatment group was violated in seven (17.9%) cases where antibiotic therapy was extended by the treating physician."
- b. The confidence interval of this outcome is non-significant.

- c. This outcome is based on one study with an N= 80.
  d. This outcome had a fragility index of 0.
  e. This outcome includes data from studies rated high risk of bias on the Newcastle Ottawa scale due to concerns over the comparability of the intervention and comparison arms.

#### **Undesirable Effects**

IUDGEMENT	RESEARCH EVID	ENCE					ADDITIONAL CONSIDERATIONS
o Large o Moderate o Small							Trivial 83% Small 17%
• Trivial o Varies							
o Don't know	Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipated effects* (95		
		(studies) Follow-up	(GRADE)	(95% CI)	Risk with long term post operative antibiotics	Risk difference with Short term postoperative antibiotics	
	Required new	80	ФООО	RR 1.05	Study popul	ation	
	course of antibiotic	(1 RCT)	Very low <sup>a,b,c</sup>	(0.23 to 4.90)	73 per 1,000	4 more per 1,000 (56 fewer to 285 more)	
	Postoperative	80 (4. PCT)	ФООО	RR 1.05	Study popul	ation	
	drain placement	(1 RCT)	Very low <sup>a,b,c</sup>	(0.16 to 7.10)	49 per 1,000	2 more per 1,000 (41 fewer to 298 more)	
	Readmission*				Study popul	ation	

Acceptability
Is the intervention acceptable to key stakeholders?

					73 per	4 more per	
		80 (1 RCT)	⊕⊖⊖⊖ Very low <sup>a,b,c</sup>	RR 1.05 (0.23 to 4.90)	1,000	1,000 (56 fewer to 285 more)	
	(17. treat b. The	9%) cases ting physic confidence	where antibio	tic theraps	oy was ex ne is non-	iolated in seven ktended by the significant. = 80.	
Certainty of evider What is the overall certainty of	<b>nce</b> If the evidence of o	effects?					
JUDGEMENT	RESEARCH EVID	ENCE					ADDITIONAL CONSIDERATIONS
● Very low ○ Low ○ Moderate ○ High ○ No included studies							Very low 100%
Values Is there important uncertainty	about or variabili	ty in how mu	ch people value th	ne main ou	tcomes?		
JUDGEMENT	RESEARCH EVID	ENCE					ADDITIONAL CONSIDERATIONS
o Important uncertainty or variability o Possibly important uncertainty or variability • Probably no important							Probably no important uncertainty or variability 83% Possibly important uncertainty or variability 17%
uncertainty or variability O No important uncertainty or variability							
Balance of effects  Does the balance between des	sirable and undesi	rable effects	favor the interven	ntion or the	compariso	n?	
JUDGEMENT	RESEARCH EVID	ENCE					ADDITIONAL CONSIDERATIONS
O Favors the comparison O Probably favors the comparison O Does not favor either the intervention or the comparison O Probably favors the intervention  • Favors the intervention							Favors the intervention 83% Probably favors the intervention 17%
O Varies O Don't know							

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes		Yes 100%
• Yes o Varies o Don't know		
Feasibility Is the intervention feasible to	implement?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes		Yes 83% Probably yes 17%
• Yes o Varies		

#### **SUMMARY OF JUDGEMENTS**

			JL	JDGEMENT			
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability			
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know

## **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	0	0	•	0

100%

### **CONCLUSIONS**

#### Recommendation

Appendix C - Evidence to Dec	ision (EtDs) Tables
------------------------------	---------------------

## **Justification**

## **Subgroup considerations**

immunocompromised

## Implementation considerations

patient education, physician education (ID, primary care physicians, hospitalists)

## **Monitoring and evaluation**

monitoring infection rate/readmission rate

## **Research priorities**

specifying how short a course is acceptable/efficacious

## REFERENCES SUMMARY

## **QUESTION**

	rm postoperative antibiotics vs. long term post operative antibiotics be used for Pediatric going appendectomy for complicated appendicitis?
POPULATION:	Pediatric patients undergoing appendectomy for complicated appendicitis
INTERVENTION:	Short term postoperative antibiotics
COMPARISON:	long term post operative antibiotics
MAIN OUTCOMES:	Organ space infection; Required new course of antibiotics; C diff infection; Postoperative drain placement; Hospital length of stay; Readmission; Reoperation;
SETTING:	
PERSPECTIVE:	
BACKGROUND:	
CONFLICT OF INTERESTS:	

### **ASSESSMENT**

<b>Problem</b> Is the problem a priorit	y?						
JUDGEMENT	RESEARCH EVIE	DENCE					ADDITIONAL CONSIDERATIONS
<ul> <li>○ No</li> <li>○ Probably no</li> <li>○ Probably yes</li> <li>• Yes</li> <li>○ Varies</li> <li>○ Don't know</li> </ul>							
Desirable Effe How substantial are the	cts e desirable anticipated e	ffects?					
JUDGEMENT	RESEARCH EVIC	DENCE					ADDITIONAL CONSIDERATIONS
o Trivial o Small • Moderate o Large o Varies o Don't know							Moderate 100%
	Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipated effects* (95		
		(studies) Follow-up	(GRADE)	(95% CI)	Risk with long term post operative antibiotics	Risk difference with Short term postoperative antibiotics	
	Organ space	788	ФФОО	RR 0.98	Study popul	ation	
	infection*	(2 RCTs)	Low <sup>a,b</sup>	(0.75 to 1.28)	207 per 1,000	4 fewer per 1,000 (52 fewer to 58 more)	
					Study popul		

Required new course of antibiotics	179 (1 observational study)	⊕○○○ Very low <sup>a,b,c</sup>	OR 0.93 (0.45 to 1.94)	207 per 1,000	12 fewer per 1,000 (102 fewer to 129 more)
C diff	686	ФФОО	RR 0.64	Study population	
infection*	(1 RCT)	Low <sup>a,b</sup>	(0.18 to 2.25)	18 per 1,000	6 fewer per 1,000 (15 fewer to 22 more)
Postoperative	1010	⊕○○○ OR 0.75		Study popul	ation
drain placement	(3 observational studies)	Very low <sup>a,b,c,d,e</sup>	(0.52 to 1.09)	148 per 1,000	33 fewer per 1,000 (65 fewer to 11 more)
Hospital length of stay	788 (2 RCTs)	⊕⊕○○ Low <sup>a</sup>	-	The mean hospital length of stay was <b>0</b>	MD 0.33 lower (4.03 lower to 3.38 higher)
Readmission*	686	ФФОО	RR 0.44	Study popul	ation
	(1 RCT)	Low <sup>a,b</sup>	(0.21 to 0.91)	65 per 1,000	<b>37 fewer per 1,000</b> (52 fewer to 6 fewer)

- a. The confidence interval for this outcome is non-significant.
- b. The fragility index for this outcome is 0.
- c. This study was rated unclear risk of bias on the Newcastle Ottawa scale due to lack of information about follow up.
- d. This outcome includes results from studies rated high risk of bias on the Newcastle Ottawa scale due to concerns over comparability of the two groups.
- e. This outcome includes results from studies rated high risk of bias on the Newcastle Ottawa scale due to concerns over their selection criteria.

#### **Undesirable Effects**

low substantial are the undesirable anticipated effects

UDGEMENT	RESEARCH EVII	DENCE					ADDITIONAL CONSIDERATIONS
C Large C Moderate							Small 83% Trivial 17%
Small Trivial	Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipated (95% CI)	absolute effects*	
o Varies o Don't know		(studies) Follow-up	(GRADE)	(95% CI)	Risk with long term post operative antibiotics	Risk difference with Short term postoperative antibiotics	
	Reoperation	686	ФФОО	RR 6.72	Study popula	ntion	
		(1 RCT)	Low <sup>a,b</sup>	(0.35 to 129.62)	0 per 1,000	0 fewer per 1,000 (0 fewer to 0 fewer)	

	b. The fragility index for this outcome is 0.	
1		
Certainty of evider What is the overall certainty or		
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
• Very low o Low o Moderate o High		very low 100%
O No included studies		
Values Is there important uncertainty	about or variability in how much people value the main outcomes?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o Important uncertainty or		
variability o Possibly important uncertainty or variability		Probably no important uncertainty or variability 83% Possibly important uncertainty or variability 17%
variability o Possibly important		variability 83% Possibly important uncertainty or
variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty or variability  Balance of effects	sirable and undesirable effects favor the intervention or the comparison?	variability 83% Possibly important uncertainty or
variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty or variability  Balance of effects	sirable and undesirable effects favor the intervention or the comparison?  RESEARCH EVIDENCE	variability 83% Possibly important uncertainty or
variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty or variability  Balance of effects Does the balance between des		variability 83% Possibly important uncertainty or variability 17%
variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty or variability  Balance of effects Does the balance between des  JUDGEMENT  o Favors the comparison o Probably favors the comparison o Does not favor either the intervention or the		variability 83% Possibly important uncertainty or variability 17%  ADDITIONAL CONSIDERATIONS
variability o Possibly important uncertainty or variability • Probably no important uncertainty or variability o No important uncertainty or variability  Balance of effects Does the balance between des  JUDGEMENT  o Favors the comparison o Probably favors the comparison o Does not favor either the intervention or the comparison • Probably favors the intervention o Favors the intervention o Varies	RESEARCH EVIDENCE	variability 83% Possibly important uncertainty or variability 17%  ADDITIONAL CONSIDERATIONS

O No O Probably no O Probably yes		Yes 100%
• Yes o Varies o Don't know		
Facethillia.		
Feasibility Is the intervention feasible to	implement?	
	research evidence	ADDITIONAL CONSIDERATIONS
Is the intervention feasible to		ADDITIONAL CONSIDERATIONS  Yes 100%

### **SUMMARY OF JUDGEMENTS**

	JUDGEMENT									
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know			
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know			
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know			
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies			
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability						
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know			
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know			
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know			

### **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
0	0	0	•	0

100%

### **CONCLUSIONS**

#### Recommendation

Appendix C - Evidence to Dec	ision (EtDs) Tables
------------------------------	---------------------

## **Justification**

## **Subgroup considerations**

immunocompromised

## Implementation considerations

patient education, physician education (ID, primary care physicians, hospitalists)

## **Monitoring and evaluation**

monitoring infection rate/readmission rate

## **Research priorities**

specifying how short a course is acceptable/efficacious

## **REFERENCES SUMMARY**

## **QUESTION**

Should Interval appendectomy vs. observation be used for adults with complicated appendicitis?								
POPULATION:	adults with complicated appendicitis							
INTERVENTION:	Interval appendectomy							
COMPARISON:	observation							
MAIN OUTCOMES:	Death; Length of stay; Return to OR short term <30d; Return to OR long term >30d; Abscess; Drain; Malignancy;							
SETTING:								
PERSPECTIVE:								
BACKGROUND:								
CONFLICT OF INTERESTS:								

## **ASSESSMENT**

Problem Is the problem a priority?							
JUDGEMENT	RESEARCH EV	/IDENCE	ADDITIONAL CONSIDERATIONS				
O No O Probably no O Probably yes • Yes							
o Varies o Don't know							
Desirable Effects How substantial are the desira	able anticipated	l effects?					
JUDGEMENT	RESEARCH EV	/IDENCE					ADDITIONAL CONSIDERATIONS
o Trivial o Small o Moderate • Large o Varies o Don't know	Observation 2  Reoperation s Interval appe	ancy rate: ndectomy 14% ( 10% (Cl 1%-67%) short term <30d ndectomy 2% (C 3% (Cl 0%-23%) b					
	Outcomes	Nº of participants	Certainty of the evidence (GRADE)	Relative effect	Anticipated absolute effects* (95% CI)		
		(studies) Follow-up		(95% CI)	Risk with observation	Risk difference with Interval appendectomy	
	Death	170	ФООО	OR 0.14 (0.01 to	Study popula	tion	
		(1 observational study)	Very low <sup>a,b</sup>	2.63)	47 per 1,000	<b>40 fewer per 1,000</b> (47 fewer to 68 more)	
	Return to	52	ФФОО	RR 0.36	Study popula	tion	
	OR short term <30d	(1 RCT)	Low <sup>b</sup>	(0.02 to 8.43)	37 per 1,000	24 fewer per 1,000	

					(36 fewer to 275 more)	
Return to	52	$\oplus \oplus \oplus \oplus$	<b>RR 0.03</b> (0.00 to 0.43)	Study population		
term >30d*	R long (1 RCT) High	High <sup>c</sup>		704 per 1,000	<b>683 fewer per 1,000</b> (704 fewer to 401 fewer)	
Neoplasm*	52 (1 RCT)	⊕⊕⊖⊖ Low <sup>c,d</sup>	RR 0.36 (0.11 to 1.18)	Study population		
				333 per 1,000	<b>213 fewer per 1,000</b> (297 fewer to 60 more)	

- a. The included study was rated high risk of bias on the Newcastle Ottawa scale due to concerns over the comparability of the two groups.
- b. This outcome had a low event rate and is very fragile.
- c. This outcome was underpowered.
- d. This outcome's confidence interval crosses from meaningful harm to meaningful benefit.

#### **Undesirable Effects**

How substantial are the undesirable anticipated effects?

JUDGEMENT	RESEARCH E	VIDENCE	ADDITIONAL CONSIDERATIONS				
o Large o Moderate							
• Trivial	Outcomes	Nº of participants	Certainty of the evidence	Relative effect	Anticipated a	absolute effects*	
o Varies o Don't know		(studies) Follow-up	(GRADE)	(95% CI)	Risk with observation	Risk difference with Interval appendectomy	
	Length of stay	29 (1 observational study)	⊕⊖⊖⊖ Very low <sup>a,b,c</sup>	-	The mean length of stay was <b>0</b>	MD <b>0.33 higher</b> (3.41 lower to 4.07 higher)	
	Abscess	52 (1 RCT)	⊕⊕⊖⊖ Low <sup>b,c</sup>	RR 3.23 (0.14 to 75.83)	Study population		
					0 per 1,000	0 more per 1,000 (0 fewer to 0 fewer)	
	Drain	The state of the s	ФФОО	RR 3.23	Study population		
		(1 RCT)	Low <sup>c,d</sup>	(0.14 to 75.83)	0 per 1,000	0 more per 1,000 (0 fewer to 0 fewer)	
	b. Ti c. Ti	he included s ewcastle Otta omparability his outcome's arm to mean his outcome					

### Appendix C - Evidence to Decision (EtDs) Tables **Certainty of evidence** What is the overall certainty of the evidence of effects? JUDGEMENT RESEARCH EVIDENCE **ADDITIONAL CONSIDERATIONS** o Very low 100% low Low o Moderate o High No included studies **Values** Is there important uncertainty about or variability in how much people value the main outcomes? JUDGEMENT RESEARCH EVIDENCE **ADDITIONAL CONSIDERATIONS** o Important uncertainty or Considerations – some patients may be variability more concerned about recurrent disease o Possibly important or risk of malignancy uncertainty or variability O Probably no important uncertainty or variability No important uncertainty or variability **Balance of effects** Does the balance between desirable and undesirable effects favor the intervention or the comparison? JUDGEMENT RESEARCH EVIDENCE ADDITIONAL CONSIDERATIONS o Favors the comparison o Probably favors the comparison o Does not favor either the intervention or the comparison o Probably favors the intervention • Favors the intervention o Varies o Don't know **Equity** What would be the impact on health equity? JUDGEMENT RESEARCH EVIDENCE ADDITIONAL CONSIDERATIONS

o Reduced o Probably reduced o Probably no impact o Probably increased o Increased o Varies o Don't know		Un or underinsured patients who cannot get an interval appendectomy covered. Access to colonoscopy post appendicitis. Further imaging scans.
Acceptability Is the intervention acceptable	to key stakeholders?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no ● Probably yes o Yes o Varies o Don't know		
<b>Feasibility</b> Is the intervention feasible to i	implement?	
JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
o No o Probably no o Probably yes  ◆ Yes o Varies o Don't know		

### **SUMMARY OF JUDGEMENTS**

	JUDGEMENT										
PROBLEM	No	Probably no	Probably yes	Yes		Varies	Don't know				
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	Don't know				
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	Don't know				
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			No included studies				
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability							
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know				
ACCEPTABILITY	No	Probably no	Probably yes	Yes		Varies	Don't know				
FEASIBILITY	No	Probably no	Probably yes	Yes		Varies	Don't know				

## **TYPE OF RECOMMENDATION**

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the	Conditional recommendation for the intervention	Strong recommendation for the intervention	
0	0	comparison	•	0	

#### **CONCLUSIONS**

									- •		
ъ,		$\boldsymbol{c}$	$\overline{}$	m	M	OB			••		
- 17	(H	ч	U)			en	Lu.	a	LI	u	ш

#### **Justification**

## **Subgroup considerations**

All neoplasms from the RCT were found in patients aged 40 and older-> would be more likely to operate with increasing age.

Frail or high-risk operative candidates -> need to weigh risk benefit of taking such a patient to the OR if they have little anticipated survival.

More likely to recommend operation in patients with personal or family history of colorectal or gastrointestinal cancer.

### Implementation considerations

### Monitoring and evaluation

 $Long\ term\ outcomes\ in\ younger\ patients\ who\ are\ managed\ with\ continued\ expectant\ management.$ 

### **Research priorities**

 $Long\ term\ outcomes\ in\ younger\ patients\ who\ are\ managed\ with\ continued\ expectant\ management.$ 

## **REFERENCES SUMMARY**