

**Supplement1. Search Strategies****Database: MEDLINE (via PubMed)**

Initial Search Date: 10/25/2018

Updated: 3/7/2020

Search number	Search terms	Number of articles
#1	"Chest Tubes"[Mesh] OR "Thoracostomy"[Mesh] OR "Chest tube"[tiab] OR "Chest tubes"[tiab] OR Thoracostomy[tiab] OR Thoracostomies[tiab]	8,602
#2	"Wounds and Injuries"[Mesh] OR Trauma[tiab] OR Traumas[tiab] OR Traumatic[tiab] OR Posttraumatic[tiab] OR Polytrauma[tiab] OR Hemothorax[tiab] OR Pneumothorax[tiab] OR Hemopneumothorax[tiab] OR Fracture[tiab] OR Fractured[tiab] OR Fractures[tiab] OR Fracturing[tiab] OR Laceration[tiab] OR Lacerations[tiab] OR Lacerated[tiab] OR Lacerates[tiab] OR Lacerating[tiab] OR Contusion[tiab] OR Contusions[tiab] OR Injury[tiab] OR Injuries[tiab] OR Injure[tiab] OR Injurious[tiab] OR Injuring[tiab] OR Blunt[tiab] OR Penetrating[tiab] OR "Non-penetrating"[tiab] OR Nonpenetrating[tiab] OR Wound[tiab] OR Wounds[tiab] OR Gunshot[tiab] OR Bullet[tiab] OR Bullets[tiab] OR Stab[tiab] OR Stabbed[tiab]	1,658,266
#3	"Anti-Bacterial Agents"[Mesh] OR "Anti-Bacterial Agents" [Pharmacological Action] OR "Antibiotic Prophylaxis"[Mesh] OR "Cephalosporins"[Mesh] OR Antibiotic[tiab] OR Antibiotics[tiab] OR Antimicrobial[tiab] OR Antimicrobials[tiab] OR Antibacterial[tiab] OR Antibacterials[tiab] OR Cefazolin[tiab] OR Ancef[tiab] OR Cephalosporin[tiab] OR Cephalosporins[tiab]	892,464
#4	#1 AND #2 AND #3	243
#5	#4 NOT (Editorial[ptyp] OR Letter[ptyp] OR Case Reports[ptyp] OR Comment[ptyp])	176
#6	#5 NOT (animals[mh] NOT humans[mh])	172
#7	#6 AND English[lang]	156

**Database: EMBASE (via Elsevier)**

Search Date: 10/25/2018

Search number	Search terms	Number of articles
#1	'Chest Tube'/exp OR 'Thoracostomy'/exp OR 'Chest tube':ti,ab OR 'Chest tubes':ti,ab OR Thoracostomy:ti,ab OR Thoracostomies:ti,ab	13,781
#2	'injury'/exp OR Trauma:ti,ab OR Traumas:ti,ab OR Traumatic:ti,ab OR Posttraumatic:ti,ab OR Polytrauma:ti,ab OR Hemothorax:ti,ab OR Pneumothorax:ti,ab OR Hemopneumothorax:ti,ab OR Fracture:ti,ab OR Fractured:ti,ab OR Fractures:ti,ab OR Fracturing:ti,ab OR Laceration:ti,ab OR Lacerations:ti,ab OR Lacerated:ti,ab OR Lacerates:ti,ab OR Lacerating:ti,ab OR Contusion:ti,ab OR Contusions:ti,ab OR Injury:ti,ab OR Injuries:ti,ab OR Injure:ti,ab OR Injurious:ti,ab OR Injuring:ti,ab OR Blunt:ti,ab OR	2,786,204

	Penetrating:ti,ab OR 'Non-penetrating':ti,ab OR Nonpenetrating:ti,ab OR Wound:ti,ab OR Wounds:ti,ab OR Gunshot:ti,ab OR Bullet:ti,ab OR Bullets:ti,ab OR Stab:ti,ab OR Stabbed:ti,ab	
#3	'Antibiotic agent'/exp OR 'Antibiotic prophylaxis'/exp OR 'Cephalosporin derivative'/exp OR Antibiotic:ti,ab OR Antibiotics:ti,ab OR Antimicrobial:ti,ab OR Antimicrobials:ti,ab OR Antibacterial:ti,ab OR Antibacterials:ti,ab OR Cefazolin:ti,ab OR Ancef:ti,ab OR Cephalosporin:ti,ab OR Cephalosporins:ti,ab	1,646,268
#4	#1 AND #2 AND #3	914
#5	#4 NOT ('case report'/exp OR 'case study'/exp OR 'editorial'/exp OR 'letter'/exp OR 'note'/exp OR [conference abstract]/lim)	276
#6	#5 AND [humans]/lim	251
#7	#6 AND [English]/lim	225

### Cochrane Library (via Wiley)

Search Date: 10/25/2018

Search number	Search terms	Number of articles
#1	[mh "Chest Tubes"] OR [mh "Thoracostomy"] OR ("Chest tube" OR "Chest tubes" OR Thoracostomy OR Thoracostomies)	1082
#2	[mh "Wounds and Injuries"] OR (Trauma OR Traumas OR Traumatic OR Posttraumatic OR Polytrauma OR Hemothorax OR Pneumothorax OR Hemopneumothorax OR Fracture OR Fractured OR Fractures OR Fracturing OR Laceration OR Lacerations OR Lacerated OR Lacerates OR Lacerating OR Contusion OR Contusions OR Injury OR Injuries OR Injure OR Injurious OR Injuring OR Blunt OR Penetrating OR "Non-penetrating" OR Nonpenetrating OR Wound OR Wounds OR Gunshot OR Bullet OR Bullets OR Stab OR Stabbed)	96,246
#3	[mh "Anti-Bacterial Agents"] OR [mh "Antibiotic Prophylaxis"] OR [mh "Cephalosporins"] OR (Antibiotic OR Antibiotics OR Antimicrobial OR Antimicrobials OR Antibacterial OR Antibacterials OR Cefazolin OR Ancef OR Cephalosporin OR Cephalosporins)	37,631
#4	#1 AND #2 AND #3	44
#5	#4 limit to Clinical Trials OR Cochrane Reviews	42

### Web of Science

Search Date: 10/25/2018

Search number	Search terms	Number of articles
#1	TS=("Chest tube" OR "Chest tubes" OR Thoracostomy OR Thoracostomies)	5,918
#2	TS=(Trauma OR Traumas OR Traumatic OR Posttraumatic OR Polytrauma OR Hemothorax OR Pneumothorax OR Hemopneumothorax OR Fracture OR Fractured OR Fractures OR Fracturing OR Laceration OR Lacerations OR Lacerated OR Lacerates OR Lacerating OR Contusion OR Contusions OR Injury	2,091,678

	OR Injuries OR Injure OR Injurious OR Injuring OR Blunt OR Penetrating OR "Non-penetrating" OR Nonpenetrating OR Wound OR Wounds OR Gunshot OR Bullet OR Bullets OR Stab OR Stabbed)	
#3	TS=(Antibiotic OR Antibiotics OR Antimicrobial OR Antimicrobials OR Antibacterial OR Antibacterials OR Cefazolin OR Ancef OR Cephalosporin OR Cephalosporins)	524,978
#4	#1 AND #2 AND #3	164
#5	(#4) AND DOCUMENT TYPES: (Abstract of Published Item OR Art Exhibit Review OR Bibliography OR Biographical-Item OR Book OR Book Chapter OR Book Review OR Chronology OR Correction OR Correction, Addition OR Dance Performance Review OR Data Paper OR Database Review OR Discussion OR Early Access OR Editorial Material OR Excerpt OR Fiction, Creative Prose OR Film Review OR Hardware Review OR Item About an Individual OR Letter OR Meeting Abstract OR Meeting Summary OR Music Performance Review OR Music Score OR Music Score Review OR News Item OR Note OR Poetry OR Proceedings Paper OR Record Review OR Reprint OR Retracted Publication OR Retraction OR Script OR Software Review OR TV Review, Radio Review OR TV Review, Radio Review Video OR Theater Review)	35
#6	#4 NOT #5	129
#7	(#6) AND LANGUAGE: (English)	122

**ClinicalTrials.gov**

Search Date: 10/25/2018

Search number	Search terms	Number of articles
#1	("chest tube" OR thoracostomy OR thoracostomies) AND (trauma OR traumatic OR posttraumatic OR hemothorax OR pneumothorax OR hemopneumothorax OR injury OR injuries OR wound OR wounds OR penetrating OR nonpenetrating) AND (Antibiotic OR Antibiotics OR Antimicrobial OR Antimicrobials OR Antibacterial OR Antibacterials OR Cefazolin OR Ancef OR Cephalosporin OR Cephalosporins)	3