

Prophylactic antibiotics in penetrating abdominal trauma: Outcome data							
Author & Reference	Title	Class	Antibiotics	#Pts	Duration (days)	Organs injured	%Infected
Bozorgzedeh A Am J Surg. 1999;177:125-131.	The duration of antibiotic administration in penetrating abdominal trauma	I	cefoxitin	148 152	24 hours 5 days	colon 24.3% colon 26.3%	9/148 (6.1%) 9/152 (5.9%)
							(intra-abdominal) p=NS
Cornwell EE J. Gastrointest. Surg. 1999;3:648-653.	Duration of antibiotic prophylaxis in high-risk patients with penetrating abdominal trauma: a prospective randomized trial	I	cefoxitin	31 32	24 hours 5 days		6/31(19%) 12/32 (38%)
							p=NS (intra-abdominal)
Fabian TC Surgery. 1992;112:788-795	Duration of antibiotic therapy for penetrating abdominal trauma: a prospective trial	I	Cefoxitin Cefotetan Cefoxitin Cefotetan	135 130 117 133	1 1 5 5	colon 28 colon 28 colon 26 colon 29	11 6 7 13
Fabian TC Am J surg 1994;167:291-6	Superiority of aztreonam/clindamycin compared with gentamicin/clindamycin in patients with penetrating abdominal trauma.	I	Gentamicin + Clindamycin Aztreonam + Clindamycin	36 37	4/1 4/1	colon 9/hv 27 colon 8/hv 29	13
Fabian et al Clin Ther. 1982;5:38-47.	Use of antibiotic prophylaxis in PAT	I	Cefotaxime (1 dose) Cefotaxime (24 hrs)	117 127	1 dose 24 hours	Colon/SB/ Solid Organs	20(17%) 13(10%)

			Cefazolin (24 hrs)	116	24 hours		11(9%)
Griswold JA Am Surg 1993;59:34-9	Injury severity dictates individualized antibiotic therapy in penetrating abdominal trauma	I	Cefoxitin Ceftizomine Mexlocillin Cefoxitin Ceftizoxime Mexlocillin	25 23 20 6 13 15	6 or 12 hrs Primary repair, no shock, ? 3 organs 6 or 12 hrs Colostomy, shock ? 3 organs	colon 5 colon 3 colon 3 colon 5 colon 3 colon 5	12 8.7 10 50 15 53
Heseltine PN J Trauma 1986;26:241-5	The efficacy of cefoxitin vs. clindamycin/gentamicin in surgically treated stab wounds of the bowel	I	Gentamicin + Clindamycin Cefoxitin	41 34	?3	Colon 14/hv27 Colon &/hv 27	7 3
Jones et al Ann Surg. 1985;201:576-585.	Evaluation of Abx therapy following PAT	I	Clinda/Tobra Cefandole Cefoxitin	85 78 94	2 days 2 days 2 days	Colon/SB/ Solid Organs	20% 29% 13%
Kirton O, et al. J Trauma.	Perioperative antibiotic use in high-risk penetrating hollow viscus injury: a prospective randomized, double-blind, placebo-control trial of 24 hours versus 5 days	I	ampicillin/sulbactam preop and for 24 hours, then randomized ampicillin/sulbactam or placebo for an additional 4 days	317	1 vs 5 days	(5 days vs 1 day): duodenum (8 vs 7), stomach (30 vs 34), sb (50 vs 63, p < 0.03), colon (82 vs 80), combined (54 vs 72, p < 0.05)	(5 days vs 1 day); IAA (11 vs 12), fasciitis (2 vs 1), peritonitis (2 vs 1), wound infection (1 vs 0)

2000;49:822-832							
Nelson RM Arch Surg 1986;121:153-6	Single-antibiotic sue for penetrating abdominal trauma.	I	Tobramycin + Clindamycin Moxalactam	85 78	5 5	colon 26/hv 54 Colon 30/hv 50	11 16
Nichols et al N Engl J Med. 1984;311:1065-1070.	Risk of Infection after PAT	I	Cefoxitin/Placebo Clinda/Gent	70 75	5 days 5 days	Colon/SB in all	14 (20%) 17 (23%) P = ns
Schmidt AM Chemotherapy. 1999;45:380-391.	A prospective, randomized comparison of single-vs-multiple dose antibiotic prophylaxis in penetrating trauma	I	cefoxitin ceftriaxone	98 97	tid x 3 days 1 dose	majority extremity	4% 5%
Sims EH Am Surg. 1997; 63:525-535	How many antibiotics are necessary to treat abdominal trauma victims?	I	cefoperazone ceftriaxone/flagyl amp/gent/flagyl	101 95 95	1 dose to 5 days (determined by nature of injury)	colon 31% jejunum 27% stomach 16% (colon injury pattern not statistically sig between between groups)	8/101 2/95 5/95 significant between
Tyburski JG Arch Surg. 1998;133:1289-1296.	A trial of ciprofloxacin and metronidazole vs gentamicin & metronidazole for penetrating abdominal trauma	I	cipro/flagyl gent/flagyl	35 33	1 dose to 4 days		20% 15%
Crenshaw C	A prosepective random study of a single agent versus combination antibiotics as therapy in	II	Cefamadole	49	?3	colon 16	6

Surg Gynecol Obst 1983;156:289-294	penetrating injuries of the abdomen		Tobramycin + Cephalothin	45	?3	colon 16	11
Delgado, George et al J Trauma. 2002;53:673-678	Characteristics of prophylactic antibiotic strategies after penetrating abdominal trauma at a Level I trauma center: a comparison with the EAST guidelines	II	Cefazolin (27%), cefotetan (8%), cefoxitin (25%), clindamycin + gentamycin (4%), ampicillin+gentamycin+metronidazole (6%), ampicillin/sulbactam (21%), other (9%)	97	1 day vs 4 days	colon 54%, sb 60%, stomach 32%	colon 24%, sb 17%, stomach 27%
Dellinger EP Arch Surg 1986;121:23-30	Efficacy of short-course antibiotic prophylaxis after penetrating intestinal injury. A prospective randomized trial.	II	Doxycycline + Penicillin G Cefoxitin Doxycycline + Penicillin G Cefoxitin	31 30 25 28	12 hrs 12 hrs 5 5	colon 18/sb 13 colon 15/sb 15 colon 14/sb 11 colon 14/sb 14	16 17 24 11
Demetriades D Injury 1991;22:20-24	Short-course antibiotic prophylaxis in penetrating abdominal injuries: Ceftriaxone versus cefoxitin	II	Ceftriaxone Cefoxitin	60 63	colon 2 hv 1	colon 12/hv 38 colon 13/hv 45	7 8
Ericsson CD J Trauma 1989;29:1356-61	Prophylactic antibiotics in trauma: The hazards of underdosing	II	Amikacin + Clindamycin 1200 Amikacin + Clindamycin 1200 Amikacin + Clindamycin 600	47 52 51	1 3 3	colon 13 colon 14 colon 18	19 21 12
Fabain TC	Antibiotics in	II	Gentamicin + Clindamycin	32	1	all	13

Am J Med 1985;79:157-60	penetrating abdominal trauma. Comparison of ticarcillin plus clavulanic acid with gentamicin plus clindamycin		Ticarcillin/Clavulanate	53	1	all	2
Feliciano DV Am J Surg 1986;152:674-81	Single agent cephalosporin prophylaxis for penetrating abdominal trauma. Results and comment on the emergence of the enterococcus	II	Cefotaxime	124	2	colon 52/hv 101	2
			Cefoxitin	149	2	colon 65/hv 117	13
			Maxalactam	153	2	colon 66/hv 111	7
Gentry LO Ann Surg 1984;200:561-6	Perioperative antibiotic therapy for penetrating injuries of the abdomen	II	Cefamadole	51	2	colon 22/sb 37	18
			Cefoxitin	50	2	colon 21/sb 40	6
			Ticarcillin + Tobramycin	51	2	colon 26/sb 37	10
Hofstetter SR J Trauma 1984;24:307-10	A prospective comparison of two regimens of prophylactic antibiotics in abdominal trauma: cefoxitin versus triple drug.	II	Cefoxitin	69	1	hv 31	14
			Ampicillin + Clindamycin+ Aminoglycoside	50	1	hv 25	18
Kreis DJ Jr	A prospective randomized study of moxalactam versus gentamicin and clindamycin in	II	Gentamicin + Clindamycin	22	>3	colon 2/hv 4	23

Surg Gynecol Obstet 1986;163:1-4	penetrating abdominal trauma.		Moxalactam	20		colon 2/hv 7	0
Lou MA Am Surg 1985;51:580-6	Comparison of cefamandole and carbenicillin in preventing sepsis following penetrating abdominal trauma	II	Cefamandole Carbenicillin	47 58	3 or 5 3 or 5	colon 13/hv 33 colon 15/hv 36	6.4 19
Lou MA J Trauma 1988;28:1541-7	Safety and efficacy of mezlocillin: A single-durg therapy for penetrating abdominal trauma	II	Mezlocillin Clindamycin + Gentamicin	74 73	colon 5-10 no injury 1	colon 20/hv 49 colon 24/hv 48	9 10
Moore et al Am J surg. 1983;146:762-765	Preoperative Antibiotics for Abd GSW: A Prospective Randomized Study	II	Amp/Amikacin/Clinda PNC G/Doxy Carbenicillin	30 26 30	1 day (no HVI), 3 day (SB), 5 day (Colon)	Colon/SB in all	6 (20%) 6 (23%) 5 (13%)
Odonnell V Surg Gynecol Obstet 1978;147:525-8	Evaluation of carbenicillin and a comparison of clindamycin and gentamicin combined therapy in penetrating abdominal trauma	II	Clindamycin + Gentamicin Carbenicillin	66 60	no injury ?4 any injury ?6	colon 15 colon 15	16 21
Oreskovich et al Arch Surg 1982;117:200-205.	Duration of preventative antibiotic administration for PAT	II	PCN G Doxycycline	42 39	12 hours 5 days	Colon/SB/ Solid Organs	4 (9.5%) 3 (7.6%)

Posner MC Surg Gynecol Obstet 1987;165:29-32	Presumptive antibiotics for penetrating abdominal wounds	II	Mezlocillin Clindamycin + Gentamicin	61 69	colon 5 hv 2	colon 14 colon 19	15 13
Reed et al J Trauma. 1995;32:21-27.	The pharmacokinetics of prophylactic antibiotics in trauma	II	Clinda and Amikacin	28	3	Colon/SB/ Solid Organs 11% developed infections. All had significantly less volume distribution	N/A
Rosemurgy AS J Clin Pharmacol 1995;35:1046-1051.	Ceftizoxime use in trauma celiotomy: pharmacokinetics and patient outcomes	II	Ceftizoxime	53	2	N/A	N/A
Rowlands BJ Am J Surg 1984;48:791-5	Comparative studies of antibiotic therapy after penetrating abdominal trauma	II	Cefamandole Cefoxitin Clindamycin + Tobramycin Moxalactam Clindamycin + Tobramycin	51 54 46 47 45	3 3 3 5 5	N/A	20 20 11 2 9
Rowlands BJ J Trauma 1987;27:250-5	Penetrating abdominal trauma: The use of operative findings to determine length of antibiotic therapy.	II	Tobramycin + Metronidazole Tobramycin + Clindamycin Tobramycin + Metronidazole Tobramycin + Clindamycin	49 53 31 27	?3 ?3	colon 21/sb 19 colon 32/sb 14 colon 1/sb 1 colon 0/sb 0	
Salim A, et al.	Analysis of 178 penetrating stomach and small bowel injuries	II	Cefoxitin (18.5%), ampicillin/sulbactam (46.1%), zosyn (25.3%), other (10.1%)	178	73.6% had antibiotics for more than 24	stomach (18.%), sb (86%), duodenum	SSI 20%, wound infections 8%, intra-

World J surg 2008;32:471-75					hours	(5%), colon, (39%), mesentery (13%), pancreas (6%), liver (23%), spleen (7%), kidney (8%), vascular (11%), diaphragm (24%)	abdominal abscess 13%
Sims EH J Trauma 1993;34:205-10	Piperacillin monotherapy compared with metronidazole and gentamicin combination in penetrating abdominal trauma	II	Gentamicin + Metronidazole Piperacillin	89 33 94 30	5 to 15 2 5 to 15 2	colon 20 hv 40 colon 26 hv 49	8 0 7 0
Van Rensburg LC J Trauma 1991;31:1490-4	Ceftriaxone (Rocephin) in abdominal trauma.	II	Ceftriaxone + Metronidazole	290 (89% stabs)	1	colon 47/hv 129	1.4 (all infections), 0 deep
Weigelt JA J Trauma 1993;34:579-84	Abdominal surgical wound infection is lowered with improved perioperative enterococcus and bacteroides therapy.	II	Cefoxitin Ampicillin/Sulbactam	309 283	1 1	colon 54 colon 57	17 9
Croce et al	Impact of Stomach and	III	Variable Regimens	812	1	Stomach	Colon

J Trauma. 1998;45:649-655.	Colon Injuries on Intra-Abdominal Abscess and the Synergistic Effect of Hemorrhage...					Colon	(11.8%) Stomach (12.5%) Both (23.5%)
Dellinger EP Arch Surg 1984;119:20-7	Risk of infection following laparotomy for penetrating abdominal injury	III	Penicillin + Tetracycline or Doxycycline	330	N/A	colon 78 hv 118	13
Dente CJ J Trauma. 2000;49:628-637	Ostomy as a risk factor for posttraumatic infection in penetrating colon injuries:	III		311		colon 100% (no rectal involvement)	78/311 (25%)
	univariate and multivariate analyses						
Hooker KD J Trauma. 1991;31:1155-60	Aminoglycoside combinations versus beta-lactams alone for penetrating abdominal trauma	III	single beta-lactam aminoglycoside combinatin	1094 862	1 dose to 6 days		0-50%
Odonnell VA Am Surg 1978;44:574-7	Role of antibiotics in penetrating abdominal trauma	III	Cephalosporin/Penicillin/Chloramphenicol, Gentamicin Kanamycin, Clindamycin, Gentamicin + Clindamycin	107	variable ?7	N/A N/A	15.8 7.4