Supplementary Materials

Antibiotic Time Out (ATO) Data

Table S1. Antibiotic Time Out Data for Intervention Cohort.

Antibiotic at Time of Alert	Eligible for ATO Alert	Modified within 24 hours of culture results	Modified at any point in therapy (after 24 hours)
Piperacillin-tazo-bactam	65	27	59
Ceftriaxone	15	0	5
Meropenem	13	5	12
Levofloxacin	5	1	3
Ertapenem	4	1	1
Aztreonam	4	1	4
Ceftazidime	1	0	0
Ampicillin-sulb-actam	1	0	1
Ceftazidime-avi-bactam	1	0	1
Cefepime	0	1	1
Ceftolozane-tazobactam	0	0	1
Grand Total	**109**	**36**	**88**

Example of ATO Alert

RWJ Antibiotic Timeout Review for PHARMTEST, TEST 004123456/1234568

Antibiotic	Dosing	Indication	Started	Active for	Reviewed	Continue	Discontinue	Defer
Aztreonam Injection	2 gm i.v. piggyback every 8 hours	Neutropenic fever	9-18-2017 7:00	7.3 days	Continued On 9-25-2017		☐	
Bactrim DS (SMZ 800 mg - TMP 160 mg)	1 tab by mouth <User Schedule>	Prophylaxis, immunosuppression	9-18-2017 13:12	7.1 days		☐	☐	☐
Daptomycin Injection	600 mg i.v. piggyback every 24 hours	Bacteremia	9-21-2017 12:13	4.1 days		☐	☐	☐

CANCEL

Process Actions

Culture Results Since 9-11-2017 15:00

Culture	Date Time	Culture Result
Blood Culture.	9-24-2017 6:58	Specimen Type/Source: Blood-line / Results: No growth at 1 day.
Blood Culture.	9-24-2017 6:58	Specimen Type/Source: Blood-peripheral / Results: No growth at 1 day.
Blood Culture.	9-22-2017 0:54	Specimen Type/Source: Blood-peripheral / Results: No growth at 3 days.
Blood Culture.	9-22-2017 0:54	Specimen Type/Source: Blood-peripheral / Results: No growth at 3 days.
Blood Culture.	9-20-2017 5:18	Specimen Type/Source: Blood-peripheral / Results: No growth at 5 days.
Blood Culture.	9-20-2017 5:08	Specimen Type/Source: Blood-peripheral / Results: Staphylococcus aureus Susceptibility results previously reported. Refer to BC17024631 from 09/17/2017. Organism Identified: Gram positive cocci in clusters Gram Stain: Blood Culture Positive: Gram Stain - gram positive cocci in clusters

Temps Since 9-11-2017 15:00

Date Time	Temp (F)
9-25-17 8:11	101.7
9-25-17 8:11	101.7
9-25-17 4:00	99.2
9-25-17 4:00	99.2
9-25-17 12:49	99.6
9-25-17 11:15	97.9
9-25-17 11:15	98.1
9-25-17 0:12	99.8
9-25-17 0:12	99.8
9-24-17 7:50	98.3
9-24-17 7:50	98.3
9-24-17 5:13	102.8

Lab Results Since 9-11-2017 15:00

Result	9-25-17 5:30	9-24-17 5:22	9-23-17 6:26	9-22-17 21:48	9-22-17 19:46	9-22-17 5:47	9-21-17 9:59	9-21-17 5:49	9-21-17 5:48	9-20-17 16:32	9-20-17 9:33	9-20-17 4:59	9-19-17 9:00	9-19-17 6:51	9-18-17 7:25	9-17-17 22:45
BUN	11	12	12			12		14				15		18	12	18
Creatinine	0.3 ↓	0.4 ↓	0.3 ↓			0.4 ↓		0.5				0.5		0.5	0.5	0.6
WBC	.2 !!	.2 !!	.1 !!			.2 !!			.3 !!	.4 !!		.7 !!		3.5 ↓	3.6 ↓	7.4
Absolute Neutrophil Count Manual												0.10 ↓		0.30 ↓	0.20 ↓	0.60 ↓
Hematocrit	19.8 !!	21.3 ↓	22.8 ↓		27.3 ↓	19.1 !!			19.5 !!	21.4 ↓		18.3 !!		21.0 ↓	18.6 !!	22.2 ↓
Hemoglobin	6.8 !!	7.5 ↓	7.8 ↓		9.5 ↓	6.6 !!			6.7 !!	7.4 ↓		6.4 !!		7.2 ↓	6.4 !!	7.7 ↓

Figure S1. Example of EMR-based ATO alert.