

Duration of Treatment for *Pseudomonas aeruginosa* bloodstream infection (BSI): a Retrospective Study

There are 3 RCTs supporting shorter (7 days) Rx duration for BSI caused by Enterobacterales, (*E. coli* was the commonest in these trials). However, there is yet an RCT assessing *P. aeruginosa* BSI and physicians tended to treat it for longer (≥ 14 days).

SETTING: Retrospective Study

Population: Adults with PA BSI from 9 countries.

Control: 11-15 days.

Intervention: 6-10 days.

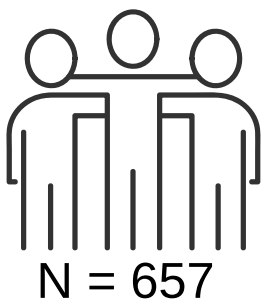
Outcome measures: composite 30-day endpoint of either:

- Mortality,
- Recurrent BSI, or
- Persistent BSI.

Period: 7 years (2019- 2015).

Of note, they included patients who were given combination therapy and excluded monotherapy with aminoglycosides, polymyxins, and antipseudomonal penicillin (why?)

Demographics



	Short (273)	Long (384)
Median age (yo)	68	67
Female	37.4%	34.6%
ICU admissions	14.7%	17%
From nursing home	7.4%	7.1%
From home	82.7%	86.6%
Pneumonia	14.7%	16.1%
Primary BSI	24.9%	20.6%
Antipseudo pen	47.3%	42.2%
Combo tx	18.3%	18%

Median duration of antibiotic tx: 11 days (short: 8 vs long: 13 days)

OUTCOMES

Similar primary outcomes:

- **Composite outcome:**
11.7% (short) vs. 15.9% (long), $p= 0.211$
- **The 30-day all-cause mortality:**
9.25 % (short) vs. 10.7% (long), $p= 0.523$
- **Recurrence/persistence:**
3% (short) vs. 5.6% (long), $p= 0.124$

Better secondary outcomes:

- **Shorter hospital stay:**
13 (short) vs 15 (long) days, $p= 0.002$
- **No drug discontinuation due to AE:**
0 (short) vs. 10 (long), $p= 0.006$

*Predictors for composite outcome in multivariate analysis were: **metastatic malignancy** and **higher SOFA scores**. Tx duration was not significant.*

TAKE HOME MESSAGE



A **shorter treatment duration (6-10 days)** may **suffice** for *Pseudomonas bacteremia* and patients may even benefit from a shorter hospital stay and lower adverse events due to antibiotic exposure.