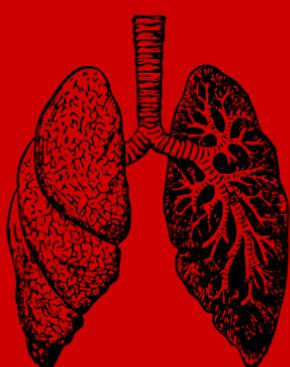


# Treatment With Reduced-Dose Trimethoprim-Sulfamethoxazole Is Effective in Mild to Moderate PJP in Patients With Hematologic Malignancies



The recommended dose of TMP-SMX for PJP treatment is 15-20mg/kg/day of TMP. However, this dose was based on findings from a small study (N=20). Therefore, the question remains whether a lower TMP dose can be given to PJP patients, especially that high TMP-SMX regimen is more toxic.

## SETTING

A retrospective study inv. 6 Swedish hospitals between 2013 and 2017.

P: Adult hematologic patients with proven/probable PJP with mild to moderate infection (PF ratio > 200mmHg)

I: 7.5–15 mg TMP/kg/day (Reduced dose)

C: 15–20 mg TMP/kg/day (standard dose)

O: 1) Changes in the PF ratio (PFR) and 2) Composite outcome of clinical failure and/or mortality at day 8 and day 30

## RESULTS



N = 113

	RD (80)	SD (33)
Median age (yo)	68	67
Male	76%	58%
Lymphoid malignancy	64%	55%
Myeloid malignancy	16%	27%
Antineoplastic*	50%	61%
Antibodies*	18%	24%
Steroids†	18%	21%
Baseline PFR (mmHg)	216	195
PFR > 200	55%	48%
PFR ≤ 200	45%	52%

RD = reduced dose, SD = standard dose, \* = during 6 months prior to PJP  
 † = ≥ 20 mg/d > 4 weeks in the preceding 90 days of PJP. PFR = PaO<sub>2</sub>/FiO<sub>2</sub>

Main outcomes:

The two arms did not differ in terms of

- Changes in the PFR.
- Clinical failure and/or death at day 8 and 30-day mortality (18% vs 21% and 14% vs 15%, respectively).

Other highlights:

- Lower 30-day mortality (14%) vs older studies 22-33% among hematological patients with PJP despite 71% receiving the low TMP regimen.
- None of the 44 patients with mild to moderate PJP who received the reduced dose died.

## DISCUSSION AND SUMMARY

Lower dose of TMP was as effective as the standard dose in hematological patients with mild to moderate PJP. This regimen also had lower rates of adverse events.

Similar findings (i.e., use of low TMP may be sufficient) may also be applied for HIV patients with PJP based on a recently performed meta-analysis.

There is an upcoming RCT to test the efficacy of low-dose TMP (vs standard dose) in treating PJP in PLWHIV. The RCT will test for superiority of the low TMP regimen and will recruit patients from 16 Canadian Hospitals.

