

3.12 Light in the MIST: Evaluating the Efficacy of a Reduced-Dose Intrapleural Thrombolysis Protocol in Pleural Infections: A Comparative Quality Improvement Study

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Background: The MIST2 trial demonstrated that intrapleural thrombolysis significantly improved outcomes for patients with pleural infections using a full-dose regimen. This study evaluates the effectiveness of a reduced-dose protocol, hypothesizing it could achieve similar clinical benefits while minimizing adverse effects and lowering resource use. **Methods:** In this prospective study, conducted from October to December 2023, we treated four patients with persistent pleural infections unresponsive to initial management. The modified MIST protocol involved once-daily administration of Alteplase 10 mg and Dornase alfa 5 mg. The primary endpoints included radiographic and clinical improvement, need for thoracic surgery, and occurrence of side effects. We compared outcomes with a historical cohort treated with the standard twice-daily dosing. **Results:** All patients in the reduced-dose group exhibited radiographic improvement or resolution, with no significant adverse effects. One patient required surgical intervention. The average hospital stay was 18.5 days, significantly shorter than the 25.1 days observed in the full-dose cohort. **Conclusions:** The reduced-dose protocol appears to be as effective as the standard regimen, offering potential advantages in safety, ease of administration, and cost-effectiveness. Larger studies are necessary to confirm these preliminary findings. **Keywords:** Pleural infection, intrapleural thrombolysis, MIST protocol, quality improvement **Disclosures:** None **Conflict of Interest:** The authors declare that they have no conflict of interest.