PICO #5. A thoracic epidural catheter and structured multi-modal pain therapy per institutional protocol compared to structured multi-modal pain therapy per institutional protocol alone for adults age >65 years old s with ≥3 rib fractures and dyspnea or refractory pain Bibliography:

Certainty assessment							Summary of findings					
							Study event rates (%)			Anticipated absolute effects		
Particip ants (studies) Follow- up	Risk of bias	Inconsist ency	Indirect ness	Impreci sion	Publica tion bias	Overal I certain ty of eviden ce	With structur ed multi- modal pain therapy per instituti onal protocol alone	With a thoracic epidural catheter and structur ed multimodal pain therapy per instituti onal protocol	Relat ive effect (95 % CI)	Risk with structur ed multi- modal pain therapy per instituti onal protocol alone	Risk differen ce with a thoracic epidural catheter and structur ed multi- modal pain therapy per instituti onal protocol	
Pneumonia												
98 (3 RCTs)	serio us ^a	not serious ^b	serious ^c	not serious	none	⊕⊕○ ○ Low	13/51 (25.5%)	6/47 (12.8%)	OR 0.37 (0.12 to 1.15)	255 per 1,000	143 fewer per 1,000 (from 215 fewer to 27 more)	
Mortality												
66 (2 RCTs)	serio us ^a	serious ^b	serious ^c	not serious	none	⊕○ ○○ Very low	2/34 (5.9%)	2/32 (6.3%)	OR 1.11 (0.15 to 8.09)	59 per 1,000	6 more per 1,000 (from 50 fewer to 277 more)	
Hospital Length of Stay (days)												
261 (3 RCTs)	serio us ^a	serious ^b	serious ^c	not serious	none	⊕○ ○○ Very low	171	90	-	The mean hospital Length of Stay (days) was 0	MD 9.12 lower (30.14 lower to 11.9 higher)	

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Certainty assessment						Summary of findings					
94 (3 RCTs)	serio usª	serious ^b	serious ^c	not serious	none	⊕○ ○○ Very low	47	47	-	The mean ventilator Days was	MD 6.97 lower (16.59 lower to 2.65 higher)

CI: confidence interval; MD: mean difference; OR: odds ratio

Explanations

- a. Poor standardization of the non-epidural pain regimen
- b. High levels of heterogeneity between studies
- c. Age is significantly younger than the population in the PICO question