

Pain control during the transition from intensive care unit to general ward

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Background

The importance of pain control is well accepted in critically ill patients and most patients have some pain during their intensive care unit (ICU) stay.¹ Poor pain control is associated with adverse clinical and psychological outcomes. However, early treatment of pain can mitigate some of these long-term problems.² Guidelines for pain, agitation and delirium by the Society of Critical Care Medicine appropriately address the management of pain in the ICU. However, there is limited literature evaluating pain control during the transfer from ICU to general ward.¹

Managing pain in critically ill patients is particularly challenging during this transition due to simultaneous logistical and treatment changes. Some patients may be discharged sooner then expected from the ICU with limited care coordination for subsequent pain management.³ Thus there is an important gap in the literature regarding the patient experience during transition from ICU to ward.

Purpose

To identify predictors of pain control during the first 24 hours of transfer from the ICU to ward

Methods

Design and Setting: This was a cross-sectional study conducted at an academic medical center in the United States.

Patient Selection: Surgical/trauma patients who were discharged from the surgical ICU and admitted to the general ward were interviewed regarding their pain after 24 hours of transfer from the ICU using the Revised American Pain Society Patient Outcome Questionnaire (APS-POQ-R).

Methods

Outcomes: The primary outcome measure was the total score on the APS-POQ-R (0 to 180 points).

Data Analyses: Univariate linear regression analyses were conducted to identify potential associations between predictors of interest and total score on the APS-POQ-R (180 points)

Results

A total of 50 patients were included.

Table 1: Patient Characteristics

Patient Characteristic	Mean (SD) or N (%) N=50
Age (years)	55 ± 21
Sex	
Male	36 (72%)
Female	14 (28%)
Race	
White	35 (70%)
Hispanic	7 (14%)
Other	8 (16%)
Patient Type	
Trauma	24 (48%)
Surgery	26 (52%)
Number of Surgeries	
0	8 (16%)
1	21 (42%)
2	13 (26%)
3 or more	8 (16%)
Opioid Dose (24 hours prior to transfer) [IV morphine equivalent]	43 ± 81
Pain Score (24 hours prior to transfer) [0-10 scale]	5.1 ± 2.2
Chronic Opioid Use	
Level 1 = no or minimal use (e.g. temporary consumption for a previous procedure or pain)	
Level 2 = taking opioid combination product (e.g. Percocet) or immediate release product as needed	
Level 3 = taking a sustained release opioid product daily (e.g. routine around the clock consumption)	
Level 1	47 (94%)
Level 2	2 (4%)
Level 3	1 (2%)

Results

Figure 1: Non-opioid Analgesics 24 hours prior to transfer

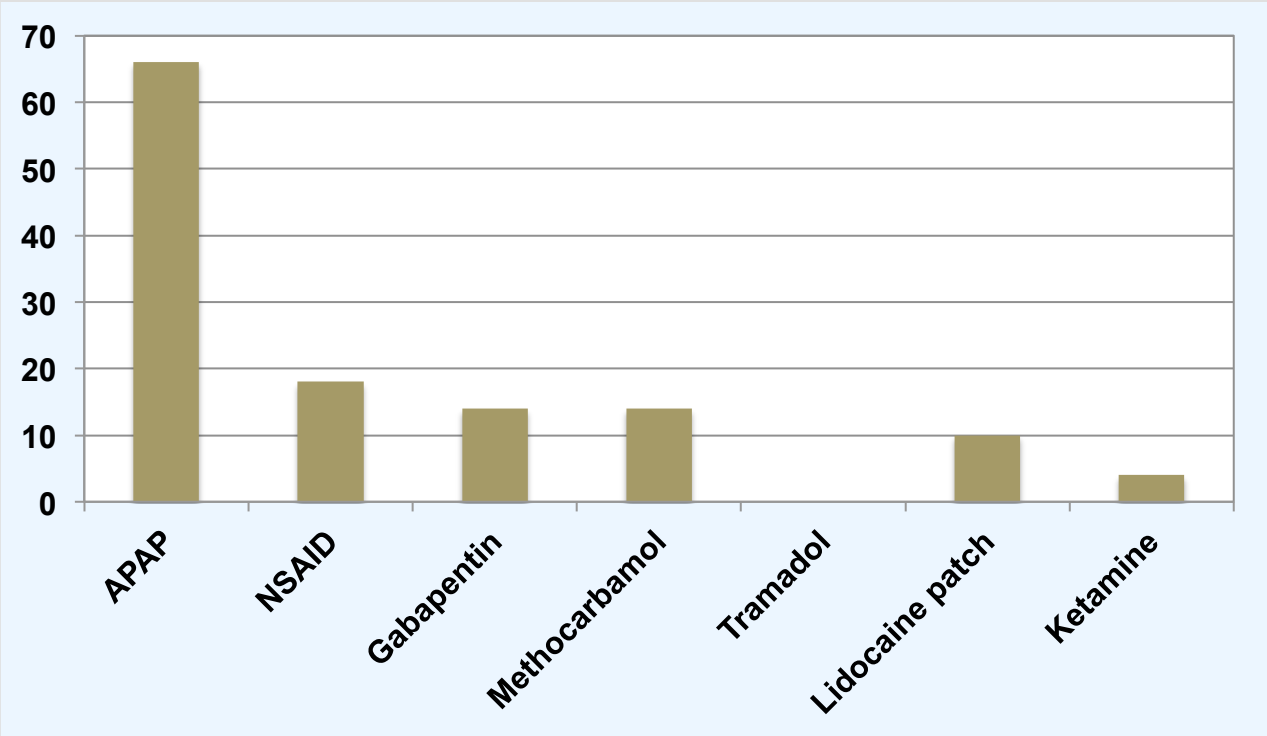


Figure 2: Mean Pain Score

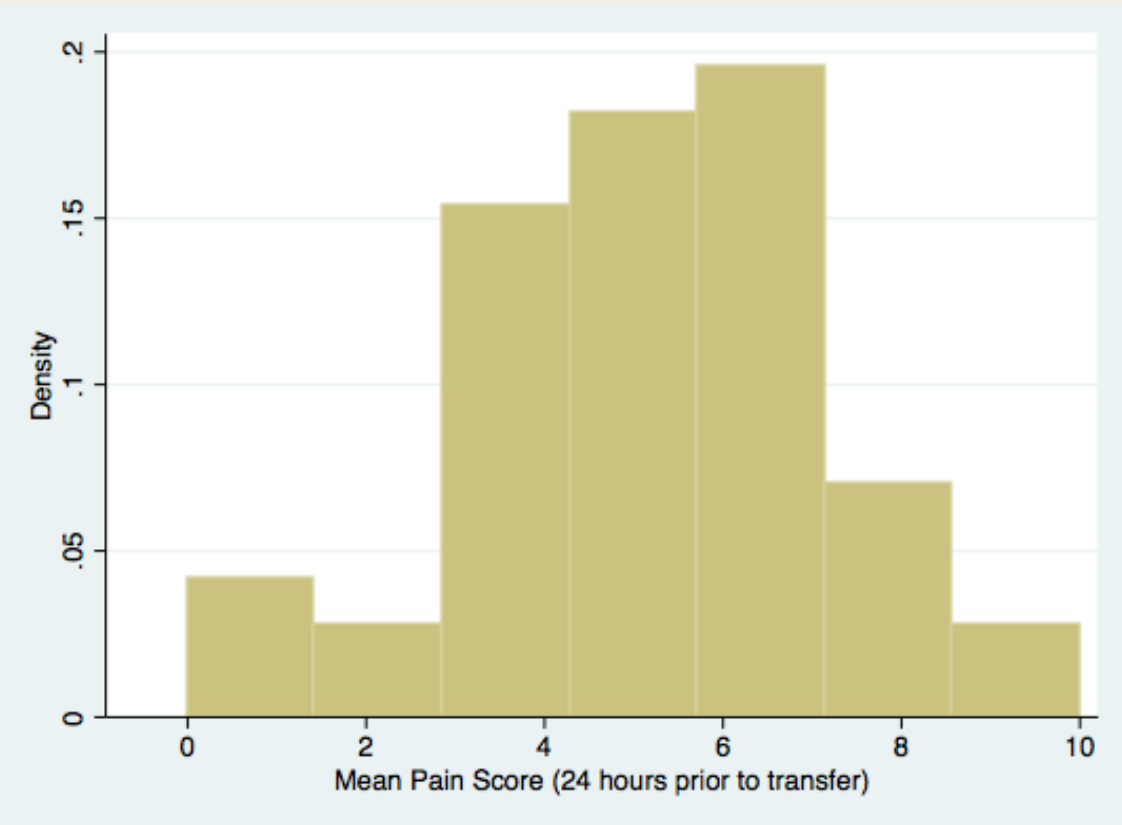
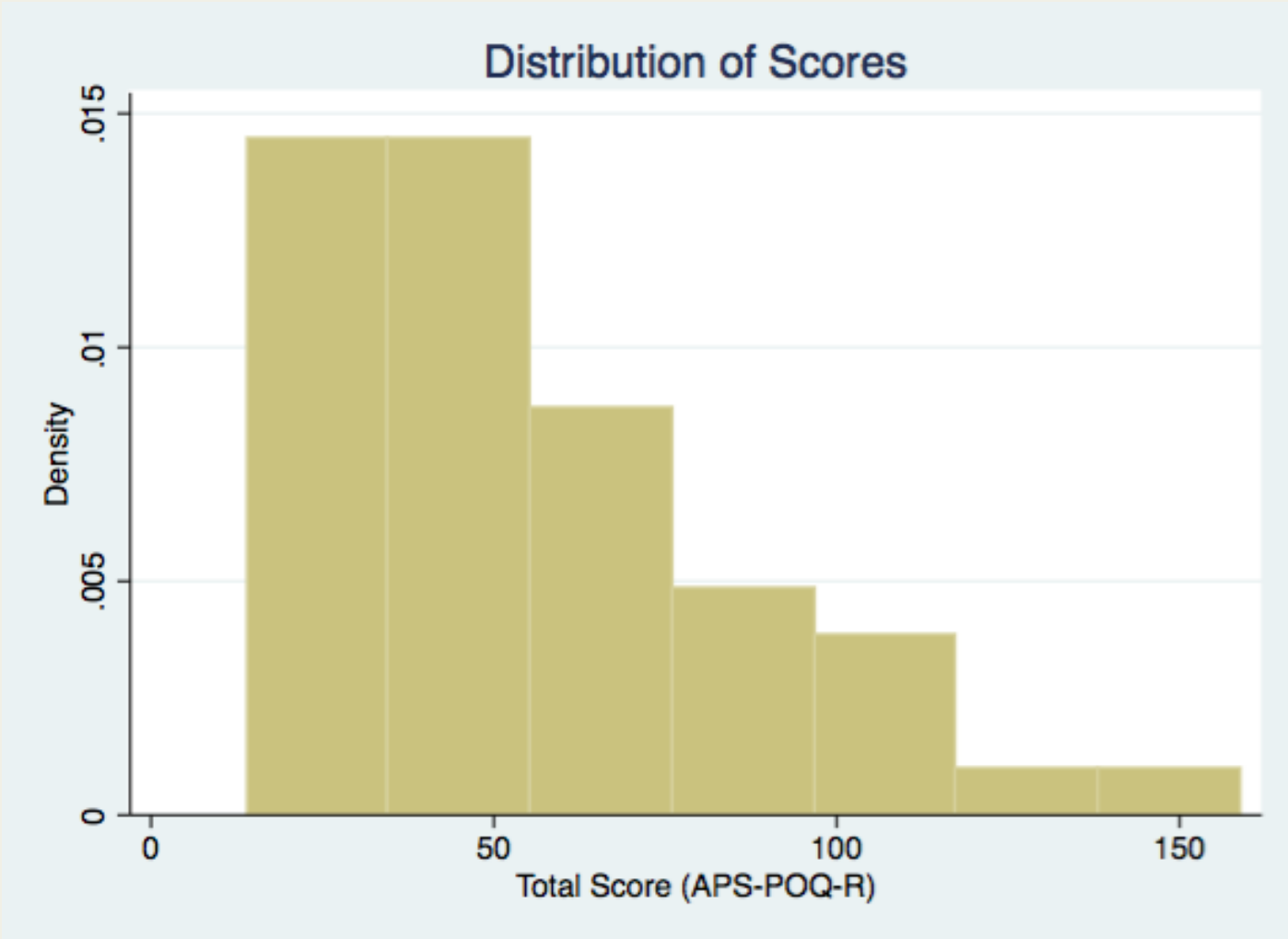


Table 2: Regression Analysis

Variables	Coef. (95% CI)	P value
Age (years)	-0.16 (-0.60, 0.27)	0.455
Sex (male)	15.02 (-4.52, 34.57)	0.129
Race		
White	[Reference]	
Hispanic	3.71 (-22.80, 30.23)	0.779
Other	-5.68 (-30.78, 19.42)	0.651
Total Opioid dose in the last 24 hours of ICU stay (IV Morphine Equivalent)	0.07 (-0.04, 0.18)	0.218
Total Opioid dose difference (IV Morphine Equivalent) (difference in opioid consumption between last two days prior to ICU Transfer)	-0.03 (-0.17, 0.11)	0.684
Number of surgeries	2.2 (-7.34, 11.74)	0.645
The mean pain score in the last 24 hours of ICU stay (scale 0-10)	7.25 (3.75, 10.75)	<0.001

Figure 3: APS-POQ-R Scores



Limitations

- Conducted in trauma/surgery patients, thus the results should be extrapolated with caution to other ICU patient populations
- Heterogeneous patient population with various injuries and surgeries
- Potential for other unmeasured predictors that could influence pain during transition from ICU to ward

Conclusions

Mean pain score in the last 24 hours of ICU stay is an important predictor of pain control during the transition from ICU to ward.

References

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DISCLOSURE

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