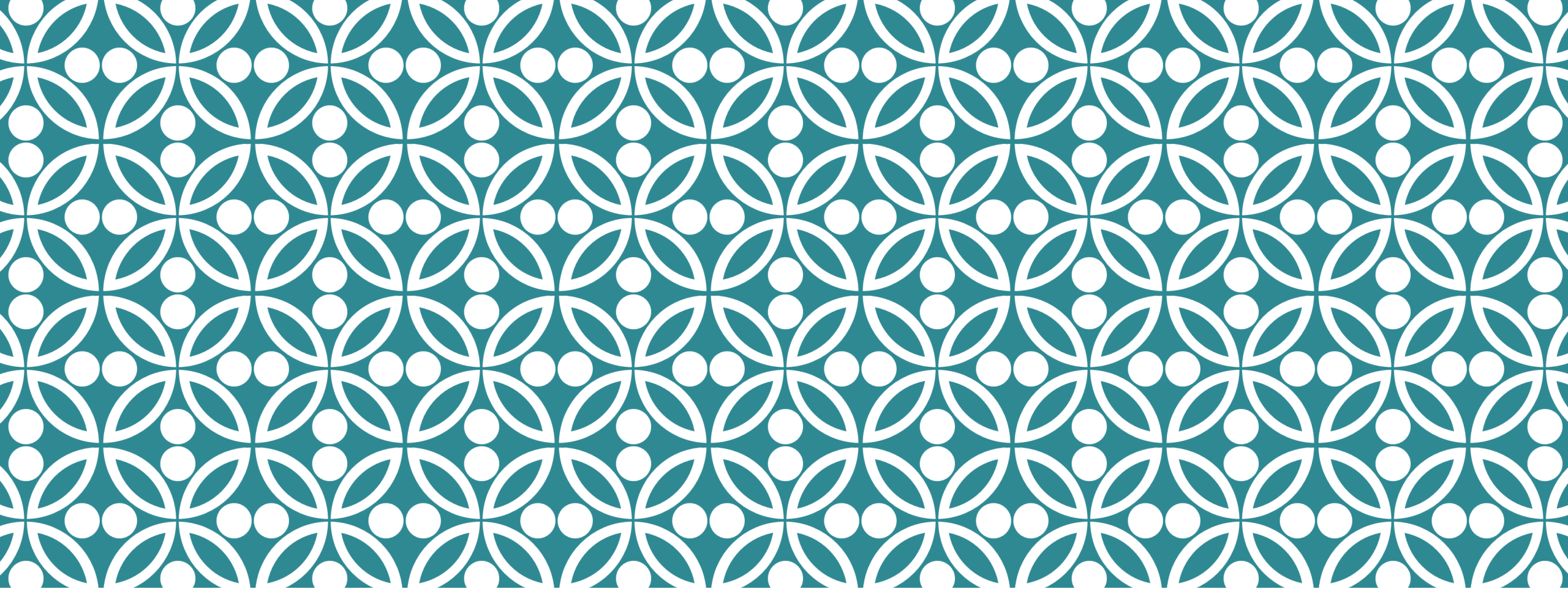




PAIN RELIEF FOR MAJOR BURNS PATIENTS IN ED:

EXPERIENCE AT A TERTIARY BURNS REFERRAL CENTRE AND LITERATURE REVIEW

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BACKGROUND

Burns pain significant cause of morbidity^{1,2}

Adequate early pain control is paramount^{1,2}

Pain assessment²

Patient variability²

Recommendations (EMSB):

- 0.05 to 0.1 mg/kg IV morphine

PHYSIOLOGICAL CHALLENGES OF BURNS PAIN²

Acute: inflammatory nociceptive pain

Inflammatory response: sensitize and stimulate pain fibres

Burn shock phase (~48hrs) → hypermetabolic phase

Altered pharmacology of drugs:

- Decreased plasma proteins
- Increased volume of distribution

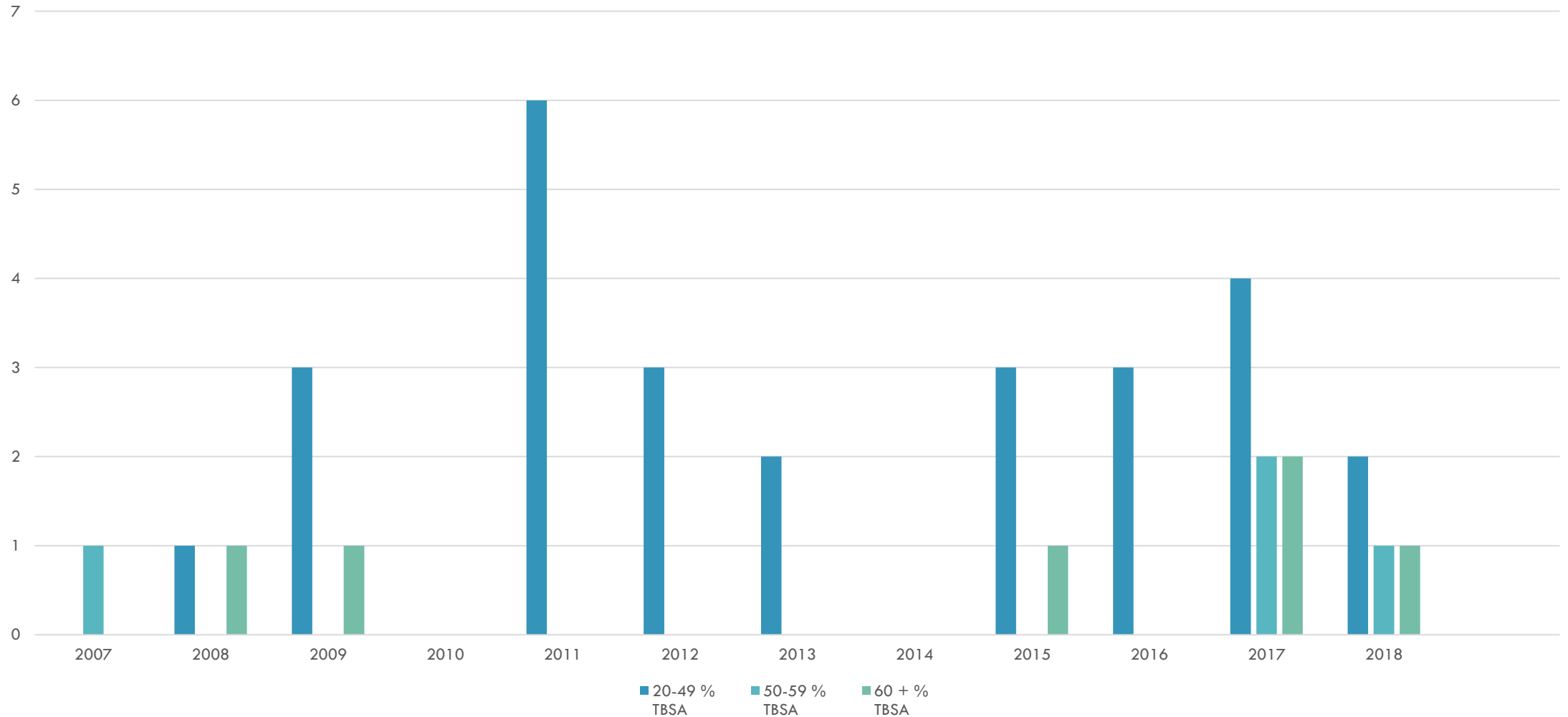
TASMANIAN EXPERIENCE — DEMOGRAPHICS

2007-2018

38 major (>20% TBSA) burns

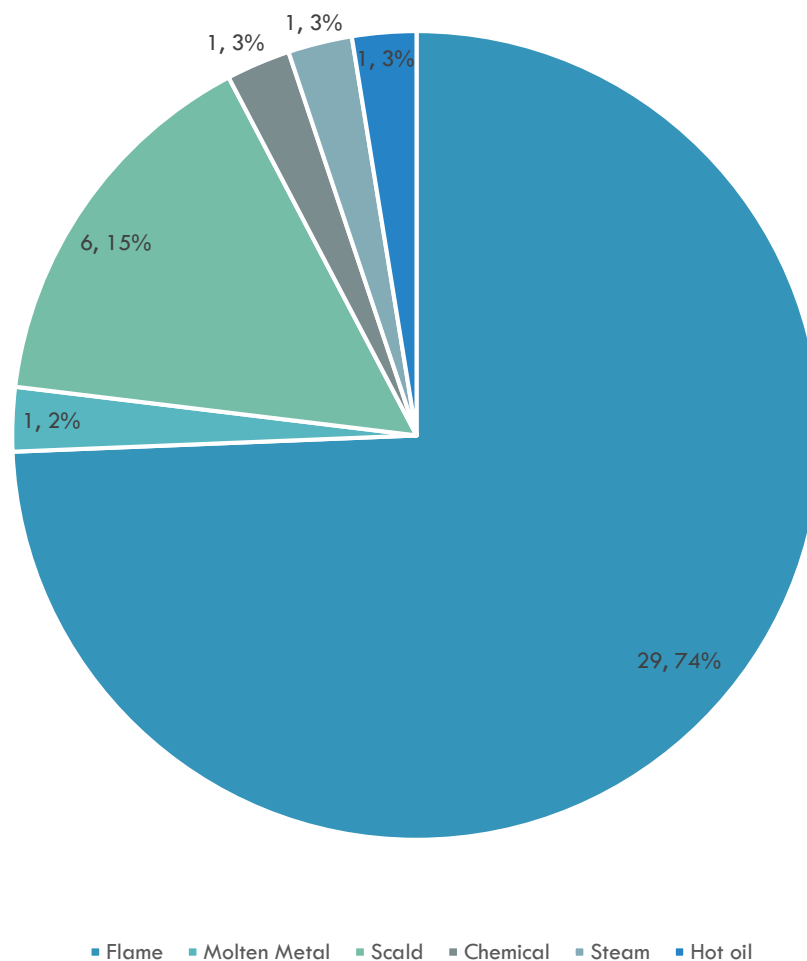
- 30 (79%) male, 8 (21%) female
- 6 died
- 6 transferred
- 29 patients required ICU admission
- Age: median 43, range 2 to 90

TASMANIAN EXPERIENCE — DEMOGRAPHICS



TASMANIAN EXPERIENCE — DEMOGRAPHICS

Burn Aetiology



PAIN RELIEF — OPIOIDS

Initial opioid requirement (mg oral morphine equivalent):

	Intubated (n=25)	Not intubated (n=13)
Mean	41.7	50.1
Median	37.5	30.5
SD	19.4	50

PAIN RELIEF — SIMPLE ANALGESIA

Simple analgesia:

Simple analgesia	Intubated (n, %)	Not intubated (n, %)	Total (n, %)
Yes	13 (52%)	11 (85%)	24 (63%)
No	12 (48%)	2 (15%)	14 (37%)

Pain scores recorded: 3 patients

PAIN RELIEF

Analgesia	Fentanyl IV (mcg)		Morphine IV/IM (mg)		Ketamine IV/IM (mg)	
ETT?	Intubated (n=13)	Not intubated (n=4)	Intubated (n=14)	Not intubated (n=9)	Intubated (n=8)	Not intubated (n=7)
Mean	168.3	138.8	12.6	19.4	73.4	70
Median	150	140	10	12	50	80
Stdev	78.8	60.6	9.1	17.7	65.2	17.3

REFERRAL TO APS

Two patients referred to APS whilst in ED.

Number of days to referral	Intubated (n=16)	Not intubated (n=11)
Mean	8.9	1.1
Median	6	1
SD	8.9	1.1
Range	0 to 28	0 to 3

LITERATURE

Poorly controlled pain in the acute period can lead to distress and significant long-term morbidity¹

Multimodal approach important³

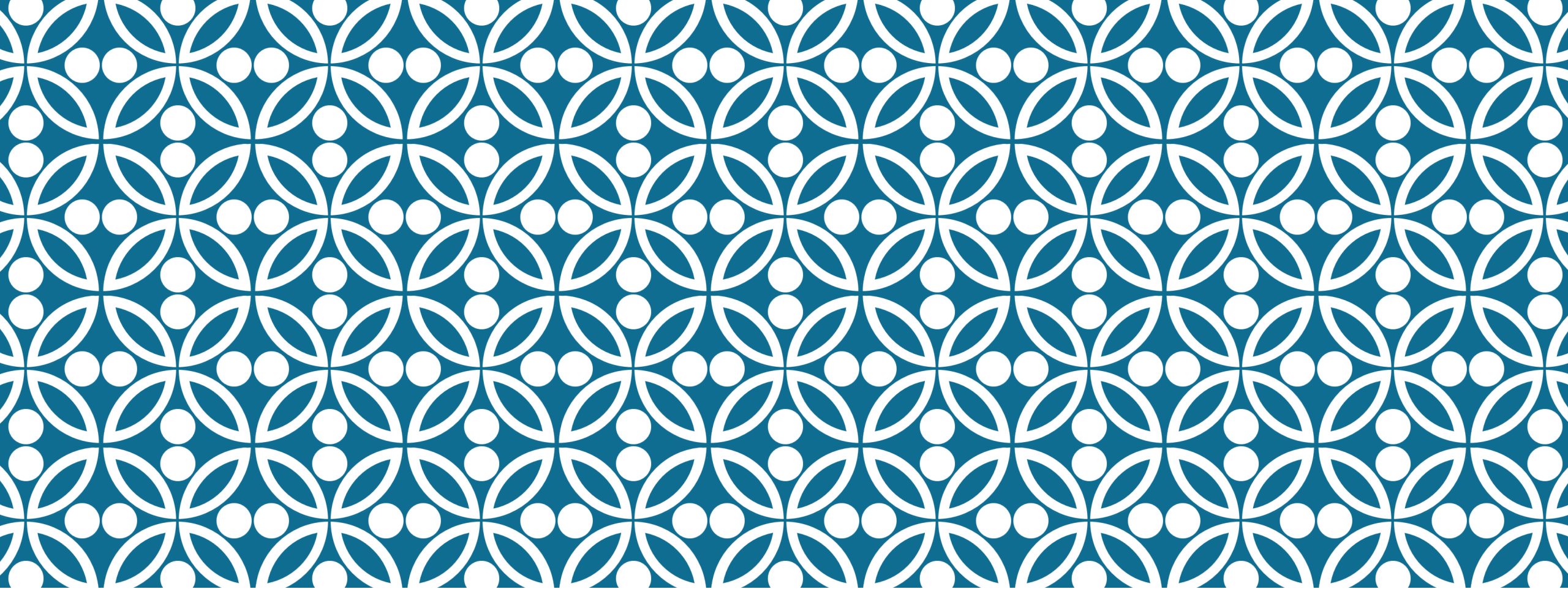
Ketamine has potential advantages²

PCA a promising solution^{4,5,6}

There is no consensus regarding best practice of acute burns pain^{1,2}

RECOMMENDATIONS

1. Early assessment and referral
2. Simple analgesia
3. Higher opioid requirements in non-intubated patients



THANK YOU

Questions?

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