

Background

There has been increasing medicalisation of the dying process. Continued acute interventions and non-beneficial treatments until the time of death remains a global issue.¹ Not only are they burdensome and harmful to patients, but also costly to the health care system.²

The ability to recognise when a patient is approaching the end of their life is essential to safe and high-quality health care.³ Clear management planning (including limitations of medical treatment) on admission and after episodes of acute deterioration is recommended by the Australian Commission on Safety and Quality in Health Care.³

Acute Resuscitation Plans (ARPs) are formal clinical plans that support proactive, anticipatory, and individualised planning for end-of-life care and may protect people from receiving non-beneficial, unwanted, or futile treatments. For standardisation purposes, from 1st October 2020, both Mater Hospital Brisbane (MHB) and Mater Private Hospital Brisbane (MPHB) commenced use of the Queensland Health SW065 Acute Resuscitation Plan forms, which replaced the Mater's own ARP form.

Aims

Primary Aim

To assess ARP completion at 48 hours of admission at MHB and MPHB.

Secondary aims

- To assess ARP completion at specific time points or events during admission – medical emergency team (MET) call or code blue, intensive care unit (ICU) admission, and 48 hours before death.
- To assess the completeness of the ARP forms.
- To assess the end-of-life care delivered – palliative care involvement, religious or social supports, use of the End of Life Pathway for the Dying and Observation Chart - Palliative Care, any non-beneficial treatments delivered within 48 hours of death, and location of death.

Methodology

A retrospective observational audit was conducted for 100 consecutive in-hospital deaths at each of MHB and MPHB since 1st October, 2020. Patients admitted before 1st Oct, 2020 were excluded. Medical records were assessed for patient characteristics, admission details, ARP forms, critical events, palliative care services, comfort cares, non-beneficial treatments delivered within 48 hours of death, and location of death. In those who did not have a pre-existing ARP, the first newly completed ARP forms were assessed for the type of form, completeness of all sections and the role of the authoriser.

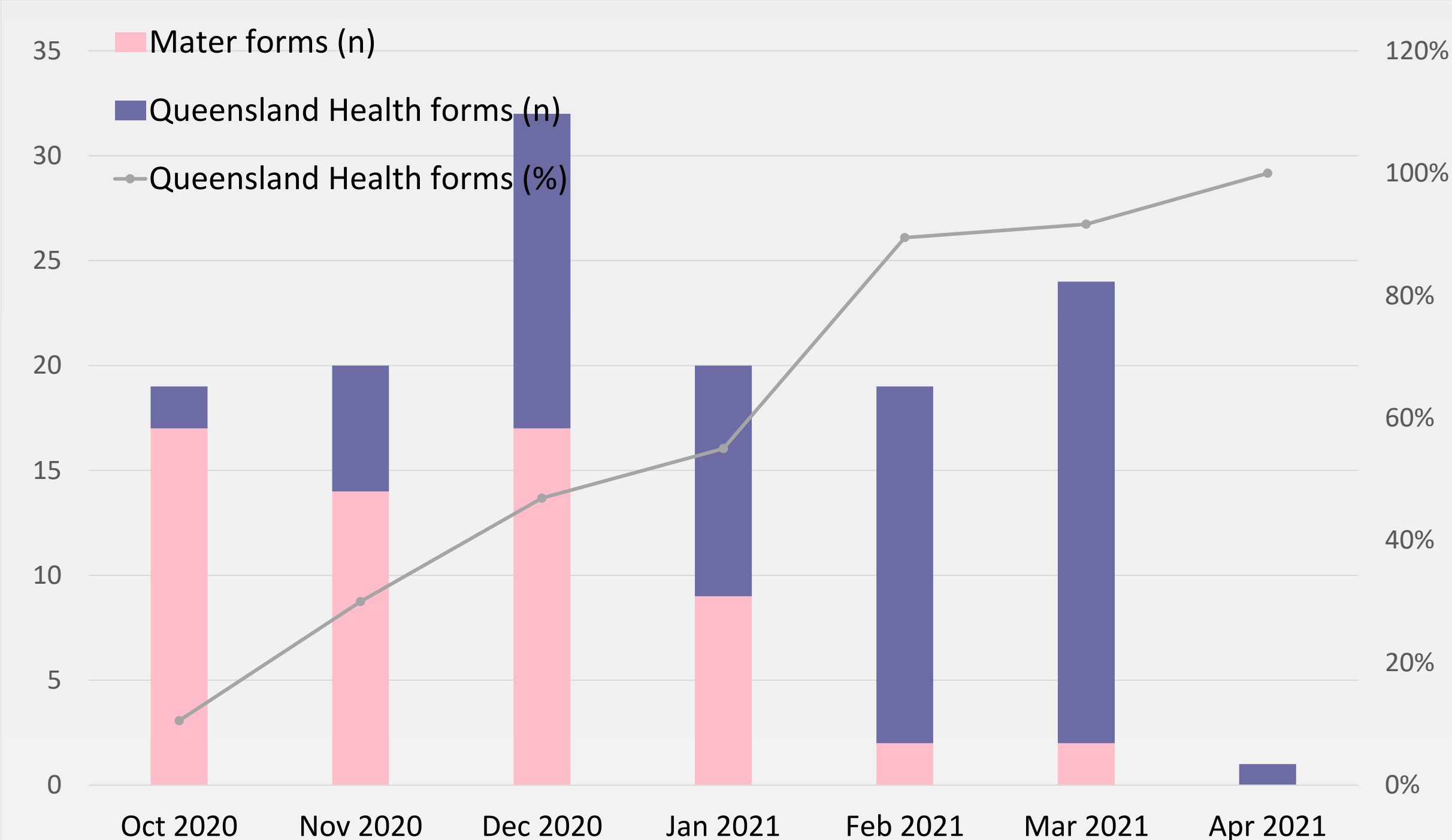


Figure 1. The First Newly Completed ARP Forms by Type

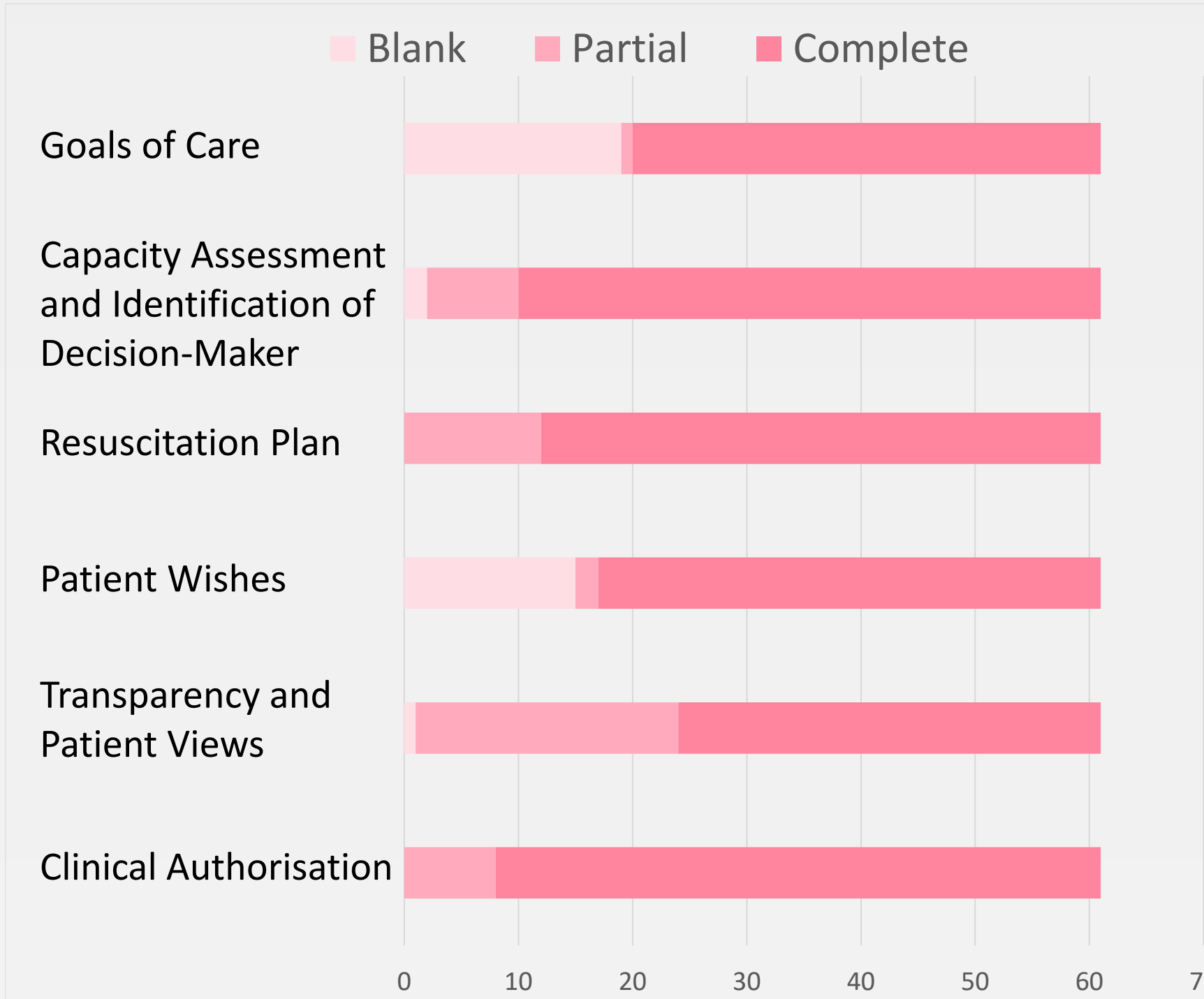


Figure 2a. Completion of the Mater ARP Forms (N=61)

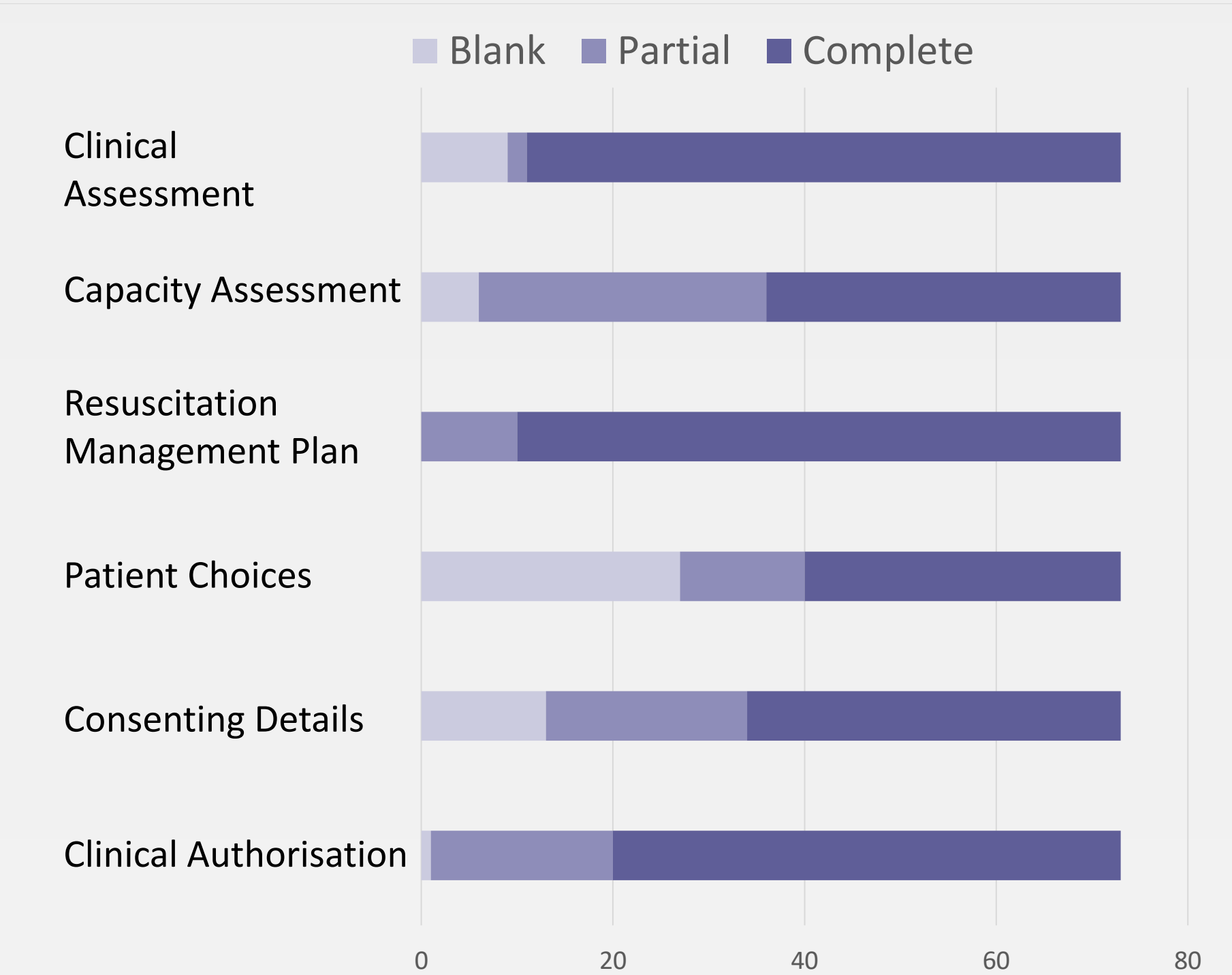


Figure 2b. Completion of the Queensland Health ARP Forms (N=73)

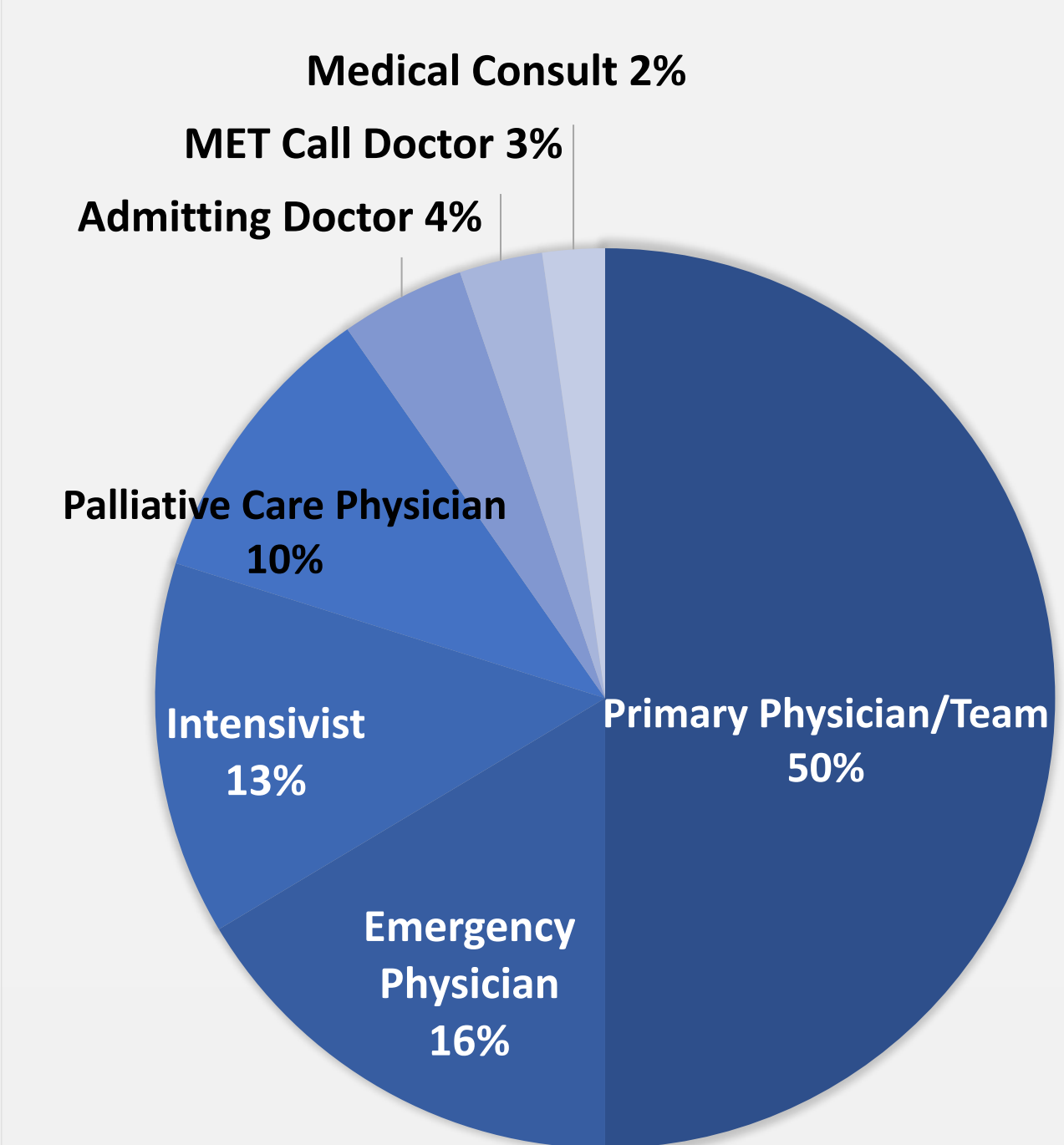


Figure 3. Authoriser of the ARP Forms (N = 134)

	MHB	MPHB
Before presentation, % (n)	31% (31) (N = 100)	19% (19) (N = 100)
Within 48 hours of admission, % (n)	72% (72) (N = 100)	50% (50) (N = 100)
Before first MET call or code blue, % (n)	68% (27) (N = 40)	31% (15) (N = 49)
First valid ARP during 48 hours after first MET call or code blue, % (n)	13% (5) (N = 40)	35% (17) (N = 49)
Before first ICU admission, % (n)	33% (3) (N = 9)	17% (4) (N = 24)
First valid ARP during 48 hours after first ICU admission, % (n)	22% (2) (N = 9)	21% (5) (N = 24)
Before last 48 hours of life, % (n)	78% (78) (N = 100)	74% (74) (N = 100)

Table 1. ARP Completion at Specific Time Points

	MHB (N=100)	MPHB (N = 100)
Palliative care involvement	60%	63%
Use of the End of Life Pathway for the Dying form	69%	51%
Use of the Observation Chart - Palliative Care	73%	71%
Pastoral or social support	60%	55%
Supportive medications	92%	87%

Table 2. End-of-Life Care Delivered



Figure 4. Location of Death (n = 200)

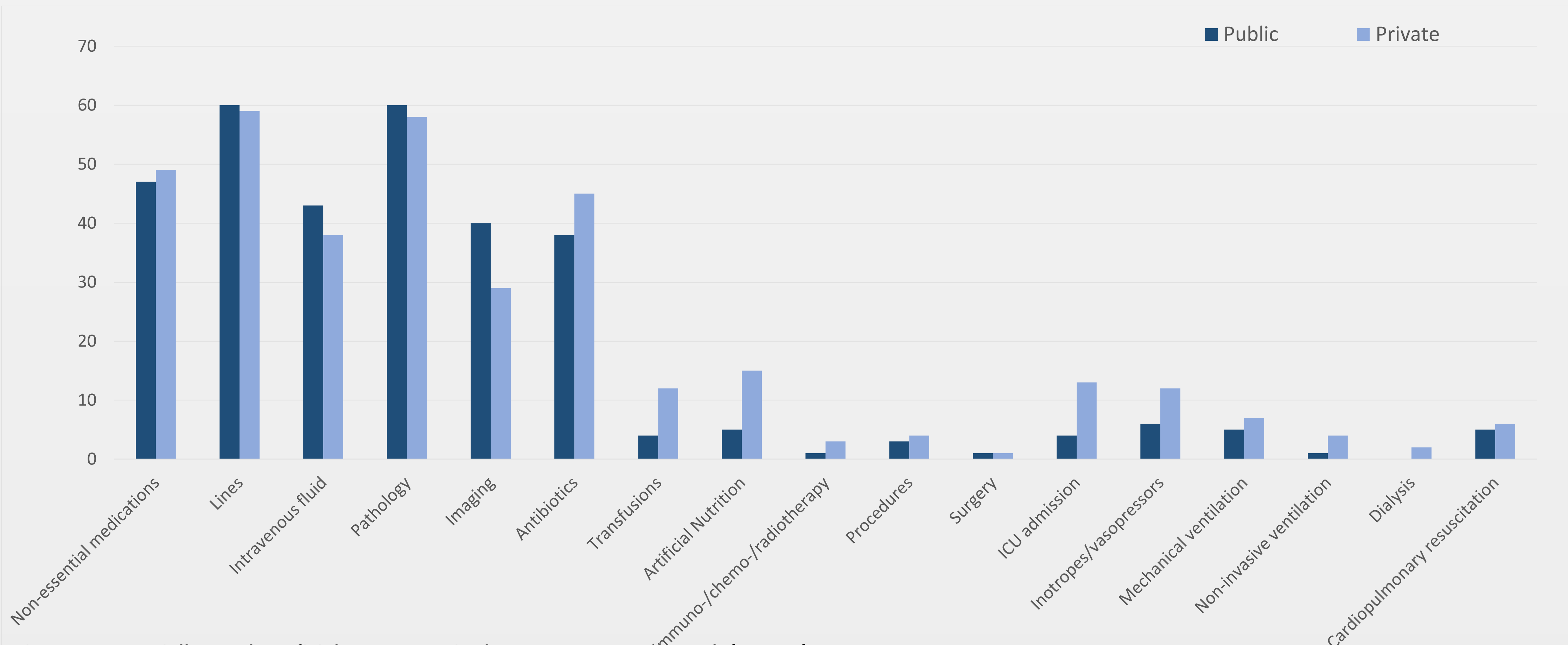


Figure 5. Potentially non-beneficial treatments in the Last 48 Hours to Death (N= 200)

Discussion

Transition from the Mater ARP forms to the Queensland Health forms was slow. 5 months after the official date of change in March, Mater ARP forms were still available on the ward and used by a minority. In addition, completeness of the new Queensland Health ARP forms is an issue with Capacity Assessment, Patient Choices, and Consenting Details commonly incomplete. Other than the primary treating team, others such as emergency physicians, intensivists and palliative care physicians have played important roles in ARP completion.

ARP completion at 48 hours of hospital admission was 72% at MHB and 50% at MPHB, this included pre-existing ARPs that were still valid at the time of admission. MHB also had higher ARP completion rates compared to MPHB at time points: prior to first MET call or code blue, first ICU admission, and before last 48 hrs of life.

The overall prevalence of use of supportive medications was high. Palliative care observation charts were used in over two-thirds of patients. The end-of-life pathway for the dying form was used less commonly at MPHB than MHB (P = 0.009). There is an opportunity to increase uptake of palliative care, pastoral and social support services. In addition, a substantial number of patients had active investigations and potentially non-beneficial treatments in the last 48 hours before death, most notably non-essential medications, lines, intravenous fluids, pathology tests, imaging and antibiotics. A total of 154 patients had at least 1 potentially non-beneficial treatment. Private patients were more likely than public to have transfusions (P = 0.037), artificial nutrition (P = 0.018), and ICU admission (P = 0.022) in the last 48 hours of life.

References

- Cardona-Morrell M, Kim JCH, Turner RM, et al. Non-beneficial treatments in hospital at the end of life: a systematic review on extent of the problem. *Int J Qual Health Care*. 2016 Sep;28(4):456-69.
- Carter HE, Winch S, Barnett AG, et al. Incidence, duration and cost of futile treatment in end-of-life hospital admissions to three Australian public-sector tertiary hospitals: a retrospective multicentre cohort study. *BMJ Open*. 2017 Oct 16;7(10):e017661.
- Australian Commission on Safety and Quality in Health Care. National consensus statement: essential elements for safe and high quality end-of-life care. Sydney: Australian Commission on Safety and Quality in Health Care; 2015.