



Responding to the unique challenges of patients with hematologic malignancies

RCN Hematology Disease Site Group

INTRODUCTION

The clinical course of hematology-oncology patients differs from patients with solid malignancy and creates unique challenges around end of life care. In 2016, the Journal of Clinical Oncology (JCO) released the results of a survey of hematologist-oncologists suggesting 10 quality end of life (EOL) indicators for hem-onc patients (Oreofe, 2016). It was suggested that level of intervention (LOI) discussions may represent important facilitators to quality EOL care. Many studies have also shown benefit to palliative care (PC) involvement in patients with malignancy. Heme-onc patients can have rapid and unpredictable changes in trajectory which make it difficult to time LOI discussions and PC involvement.

OBJECTIVES

- 1) Provide a description of the demographics, trajectory and goals of therapy of hem-onc patients at the RCN from their final admission to hospital to their death.
- 2) Measure how we performed during that period of time on providing quality EOL care to our patients based on 5 of the JCO indicators (Figure 2).
- 3) Measure how PC involvement and LOI discussion impacted our performance on these indicators.

METHODS

Retrospective chart review on the RCN registry of hem-onc patients who died from April 2014 to March 2016. Chart reviewed for all relevant cancer history and evolution from last admission to death. **Inclusion criteria:** cause of death directly related to malignancy or its treatment, pathologically-confirmed malignancy, availability of complete data, diagnosed and treated at a RCN hospital. **Data Collection** through the Chartmaxx and Oacis online charting systems. All ICU, hematology and PCU consultations, LOI sheets, progress notes, clinic notes, discharge summaries, pharmacy prescriptions and SP3 forms were reviewed and needed to be available for the chart to be considered complete.

Goals of therapy were classified as curative, slow progression, or palliative. The following definitions were used:

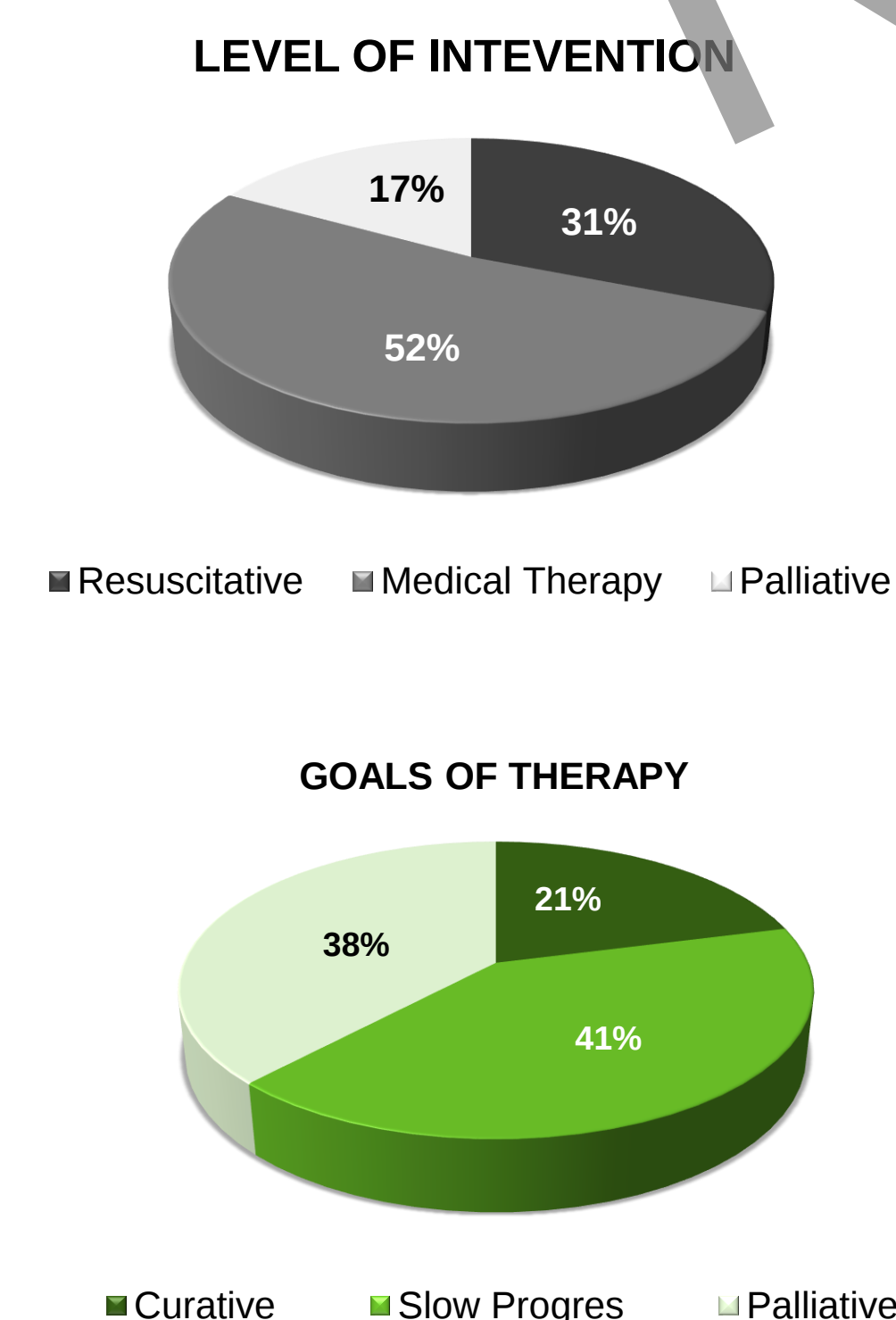
- **Curative:** treating a patient with new or relapsed cancer with curative intent
- **Slow progression:** treating a patient with new cancer or relapsed cancer which cannot be cured with the intention of slowing progression and managing symptoms
- **Palliative:** treating the symptoms and providing end of life care to a patient who no longer wishes to receive active therapy or for whom there are no further therapies to offer

DEMOGRAPHICS

Table 1: Patient Demographics (n=297)

Diagnosis ^a	
New	47 (16)
Known	248 (84)
Goals of Therapy	
Remission	61 (21)
Slow Progression	122 (41)
Palliative	114 (38)
Type of Cancer Diagnosis ^b	
Lymphoma	119 (40)
Leukemia	101 (34)
Myeloma	53 (18)
MDS	21 (7)
Allotransplant Patient	
Actively receiving	6 (2)
Candidate	10 (3)
Previously received	19 (6)
Not a candidate	262 (88)

^a2 patients had missing data
^b3 patients had an "other" cancer diagnosis



RESULTS

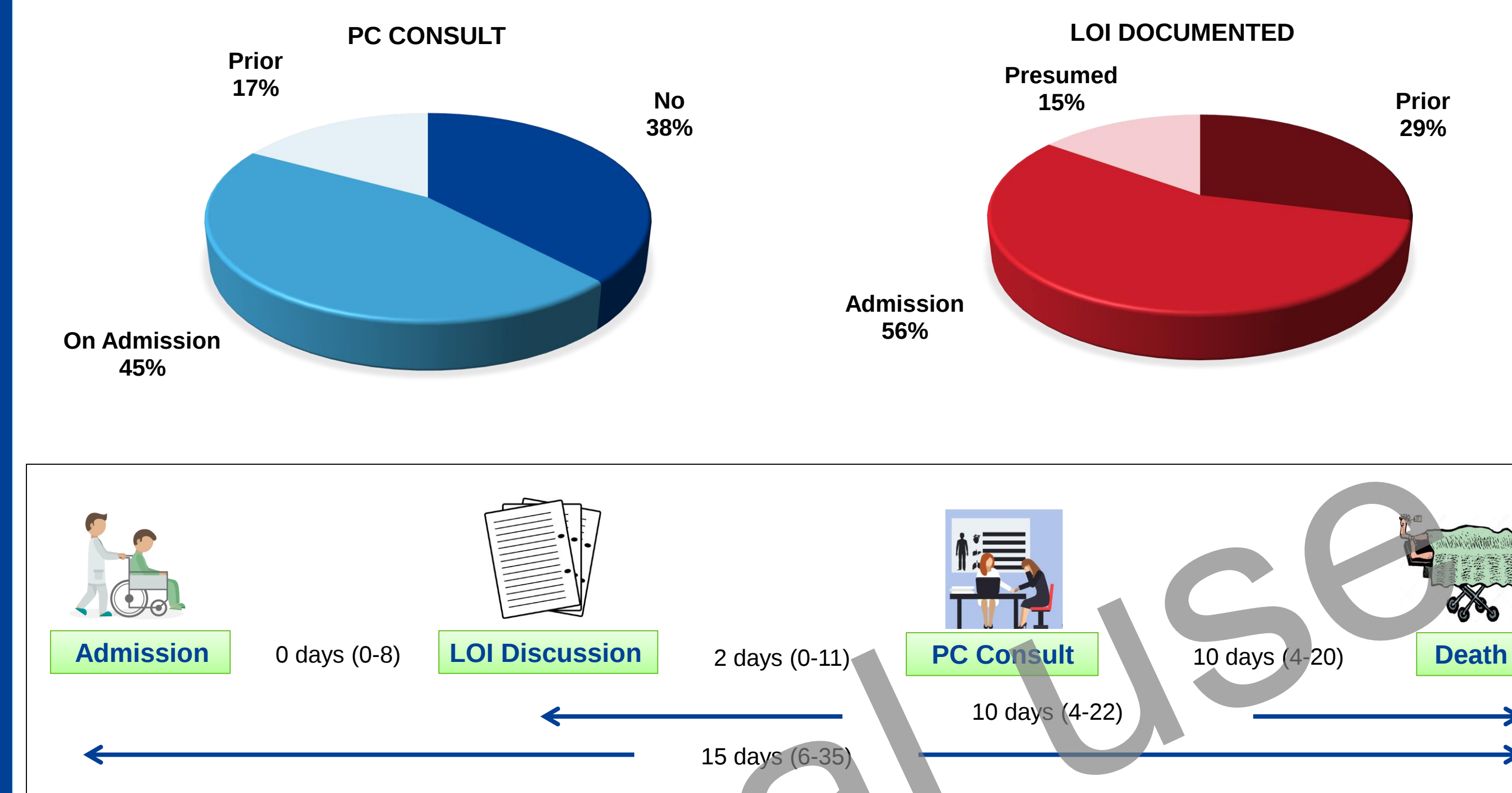


Figure 1: Trajectory of Patients, median days (25th and 75th percentile in days)

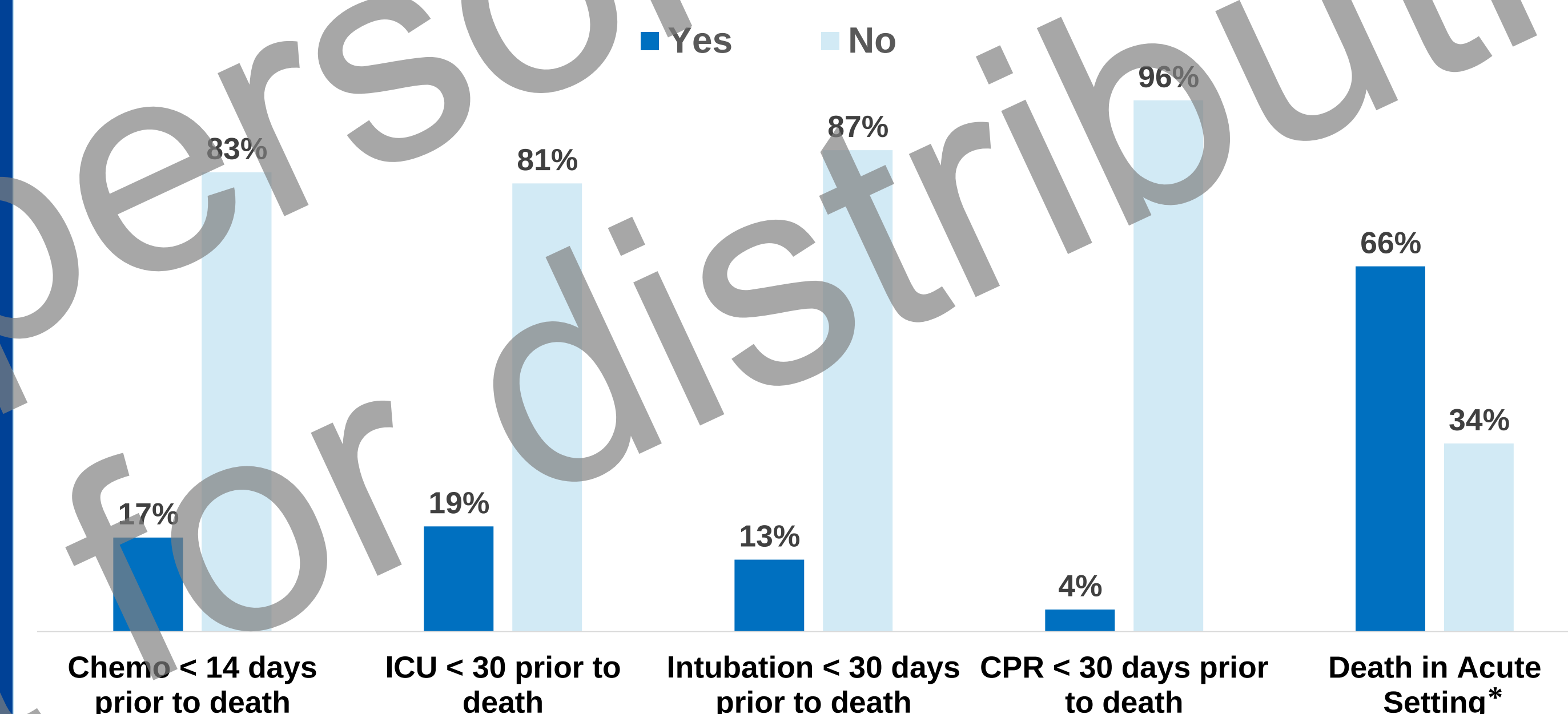


Figure 2: Overall performance on JCO Indicator (N = 297; *3 patients place of death was unknown)

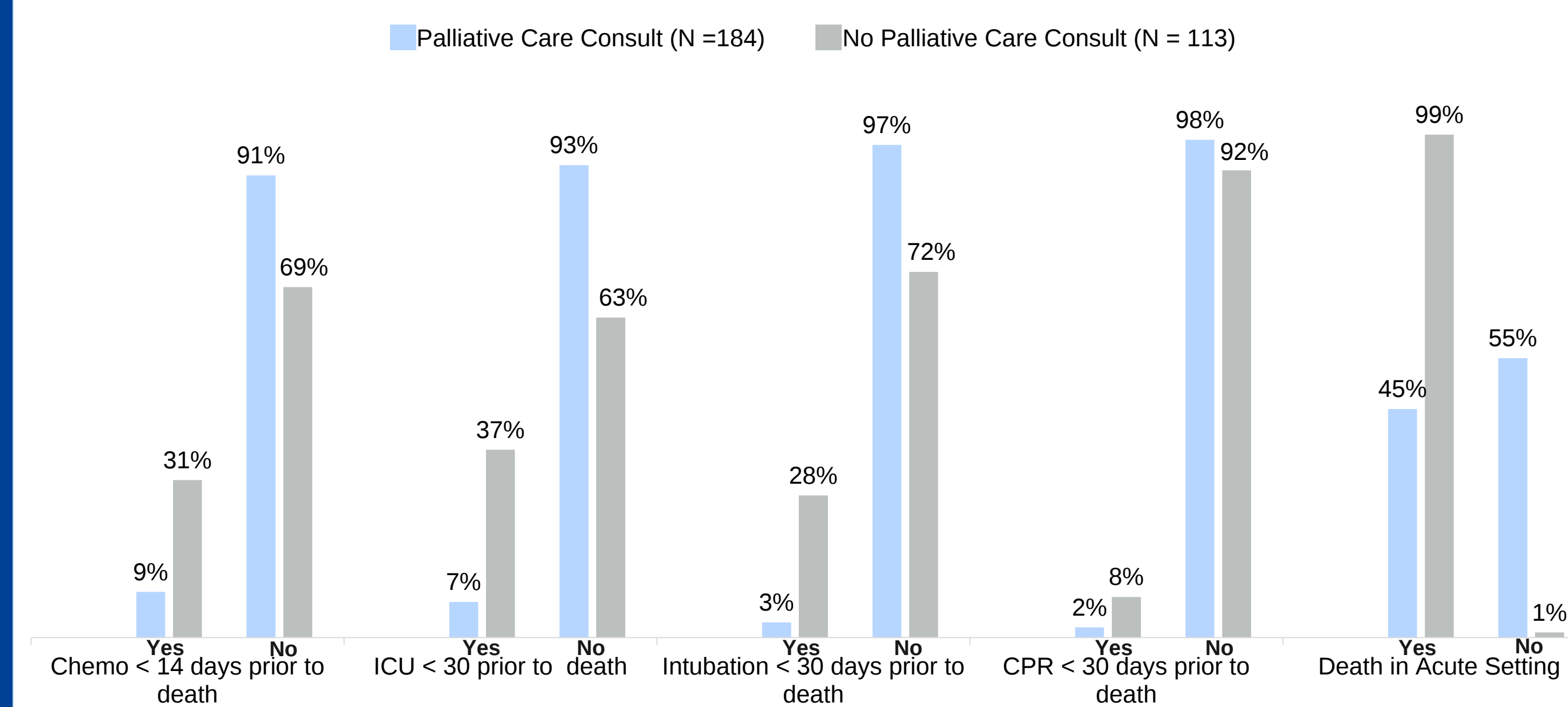


Figure 3: Performance on JCO EOL Indicator by PC Consult

■ Prior (N = 86) ■ At Admission (N = 167) ■ Presumed (N = 43)

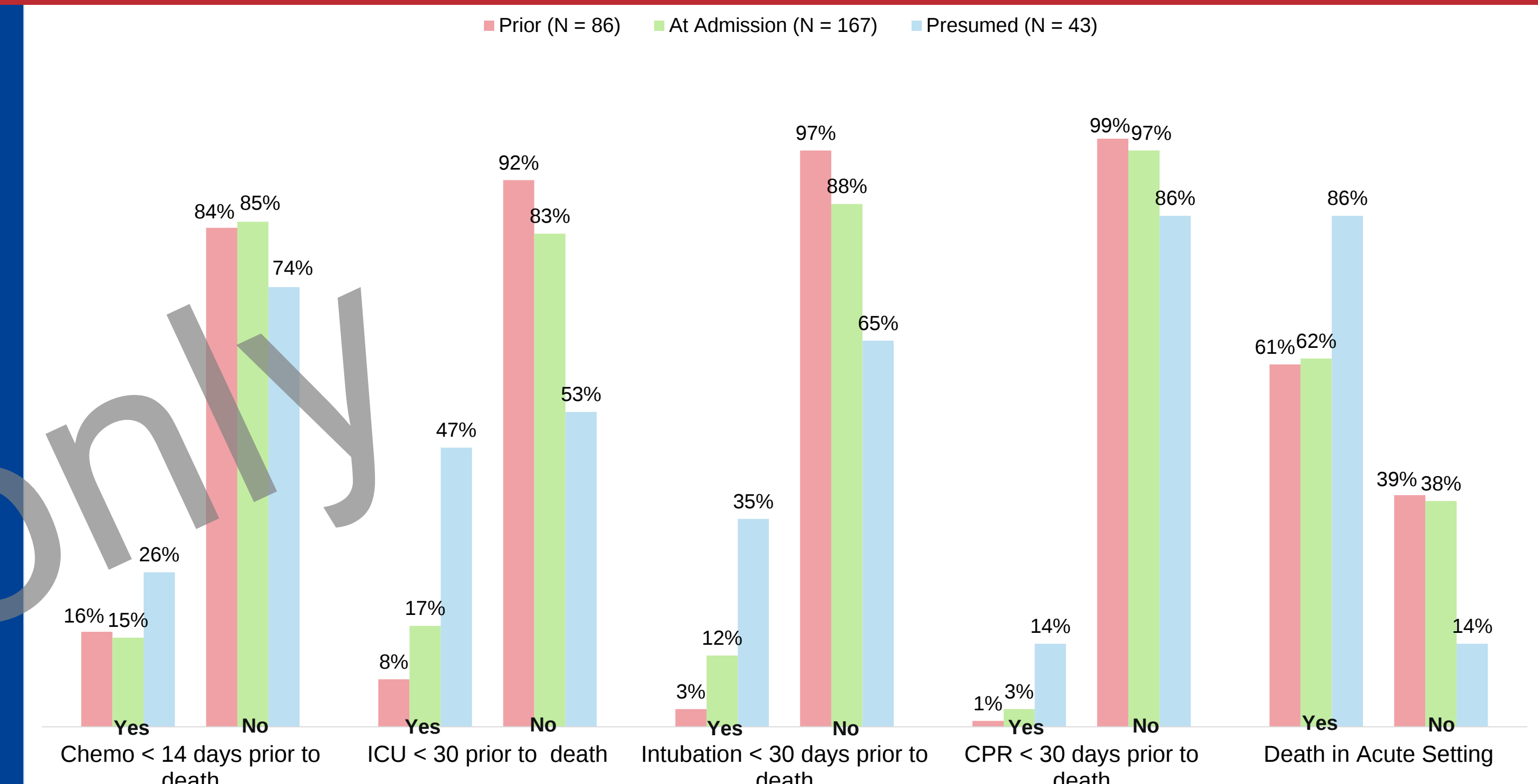


Figure 4: Performance on JCO Indicator by LOI

CONCLUSION

Patient Trajectory

- Only 38% of hem-onc patients on their last admission to hospital were considered palliative, reflecting the heterogeneity of our patient population
- The average length of hospitalization prior to death was 15 days

JCO Indicators for quality EOL care

- Less than 20% received life sustaining therapy, but 66% still died in an acute setting.
- When stratified by goals of therapy, patients with curative intent accounted for a significant amount of those receiving life sustaining measures at the end of life which encompassed many JCO indicators.

PC involvement

- 17% had PC consultation prior to their last admission
- 62% were seen by PC prior to their death
- The average time of involvement of PC to death was 10 days
- PC involvement was associated with improved performance on JCO indicator

LOI discussion

- 29% had a LOI discussed prior to their last admission
- 14% had a LOI documented as presumed where no discussion was had
- In the majority of cases, LOI discussion occurred prior to PC consultation
- LOI was associated with improved performance on JCO indicator

TRANSLATION ACROSS THE RCN

- The heterogenous presentation and uncertainty close to death puts into question using the suggested JCO indicator as a marker of quality EOL care for our patients who are of curative intent
 - Future** → Heme specific quality indicators
- PC involvement and LOI discussions currently occur less than 14 days prior to death and are associated with better performance on the JCO indicator
 - Future** → exploration of causal relationship between LOI discussions, PC involvement & quality EOL care
- LOI discussion is associated with better performance on the JCO indicator
 - Future** → Quality improvement projects on developing LOI discussion skills
- Discussing goals of therapy and exploring patient wishes may help address clinical uncertainty
 - Future** → Quality improvement projects on patient goal directed therapy