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INTRODUCTION

- Palliative care (PC) has been integrated with Critical Care through the IPAL-EM and IPAL-ICU efforts of the Center to Advance Palliative Care (CAPC). CAPC provides resources such as PC screens to identify patients who could benefit from a consultation
- However, literature review yielded no validated PC screens for use in the ICU and no multicenter prospective reports of clinical and cost outcomes of palliative care consultations in patients who receive early screening with a standard instrument

OBJECTIVE

- To examine high-risk, screen-positive ICU patients and compare outcomes between those that did and did not receive a PC consult.

METHODS

- 7 Hospitals in 3 Markets (Detroit, Chicago, Harlingen Texas)
- 16 week period of nurse-performed ICU screening on ICU admission (October 15th, 2012 - April 7th, 2013)
- Patients were considered screened positive if they had at least one palliative care risk factor
- Data obtained from paper screening forms (Figure 1) and electronic medical records
- Each hospital had a palliative care service to respond to consultation orders
- Multiple regression and propensity analysis were used

Patient ID Sticker	ICU Palliative Care Screening Tool CHECK LIST TO BE COMPLETED BY ICU RN						ICU Admission Date:
	DAY 1		DAY 3		DAY 5		
1 PC risk factor: Palliative care consult indicated 2 PC risk factors: Palliative care consult strongly indicated							
Palliative Care Risk Factors							
1. Admitted from SNF, LTAC, Vent LTC, or home care with private duty nursing with ADL dependencies	Yes	No	Yes	No	Yes	No	Comments
2. End Stage Dementia, ALS, Parkinson's & MS							
3. Large intracranial Hemorrhage with anoxic encephalopathy or on ventilator							
4. Advanced or Metastatic cancer							
5. Admitted to ICU post cardiac or respiratory arrest with neurological compromise							
6. Admitted to ICU with hospital LOS > 5 days or 2nd ICU readmission with same diagnosis in 30 days							
7. Team perceived PC need based on poor prognosis and complex care; e.g. considering dialysis, trach or PEG							

Figure 1: Palliative Care ICU Screen

RESULTS

- Of 405 patients who screened positive, 160 (39.5%) received a palliative care consultation and 245 (61.5%) received no consultation. (Figure 2)
- Using propensity scores to balance groups, those receiving consultations had higher adjusted rates of resuscitation status change to DNR (OR=7.5; 95%CI 5.6, 9.9), admission to hospice (OR= 7.6; 95% CI 5.0, 11.7), and a non-significant (OR=0.7; 95% CI 0.5, 1.01) reduction in readmissions within 30 days. (Figure 3)
- Overall, multivariate analysis did not show a difference in direct costs; in subgroup analysis, Palliative Care Consultations performed by day 4 of admission were associated with a reduction in length of stay of 2.3 days (95% CI -3.3, -1.1) and \$2,474 less in direct costs per admission (95% CI -\$119, -\$3580) compared to those without consultation. (Figures 4 & 5)

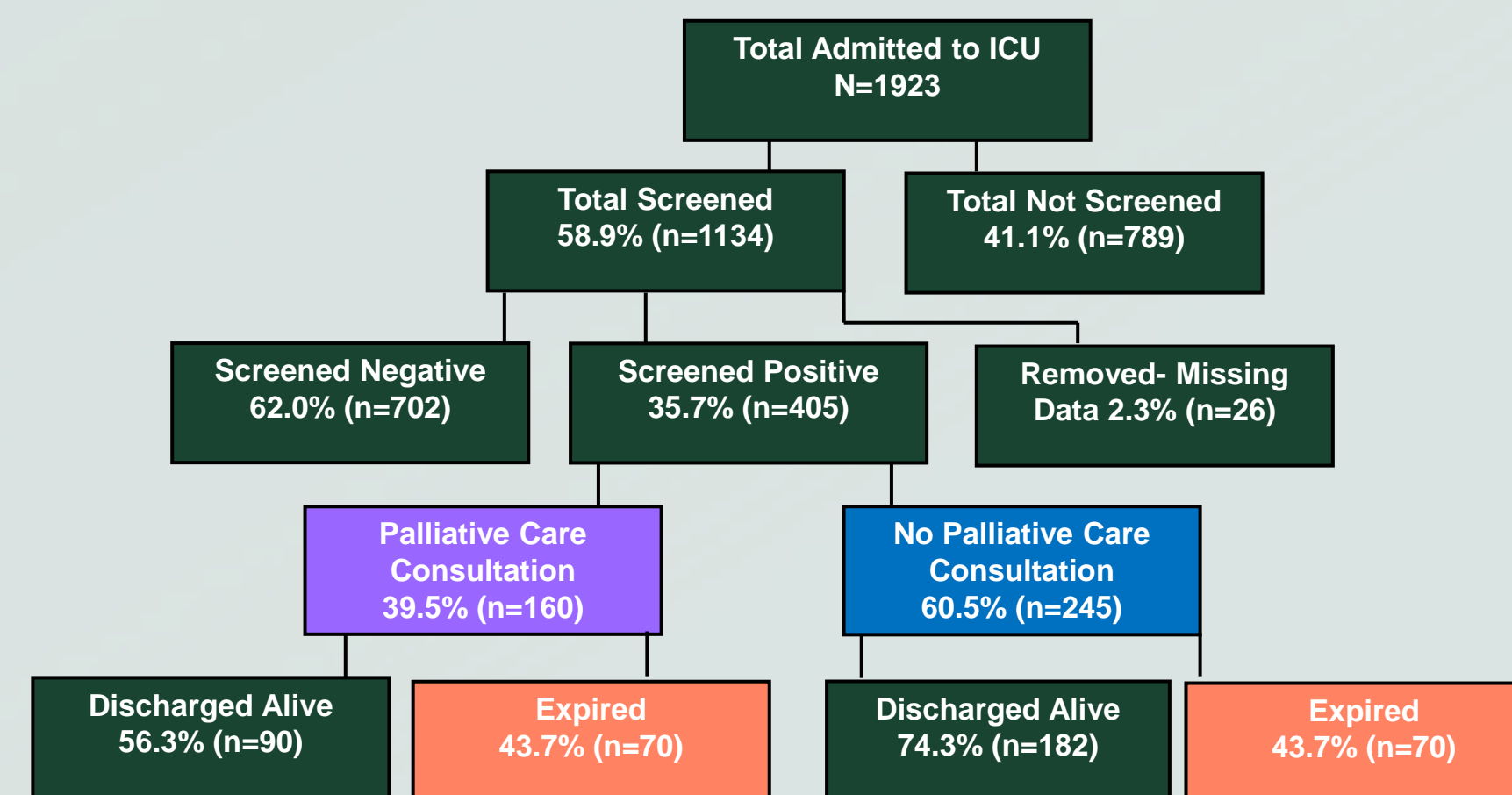


Figure 2: Patient Screen Status Outcome Flow Diagram

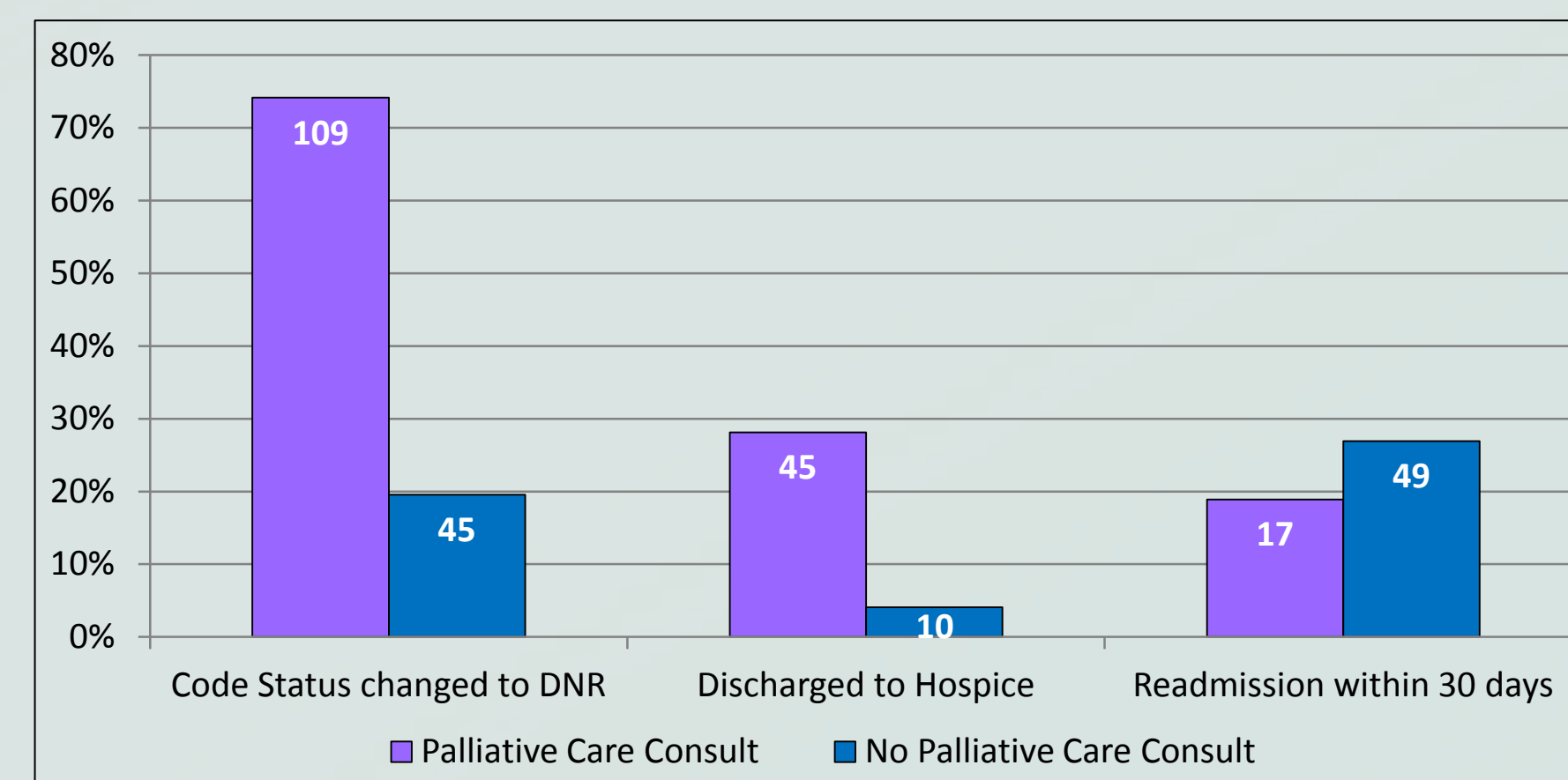


Figure 3: Clinical Outcomes of Screened Positive Patients

RESULTS

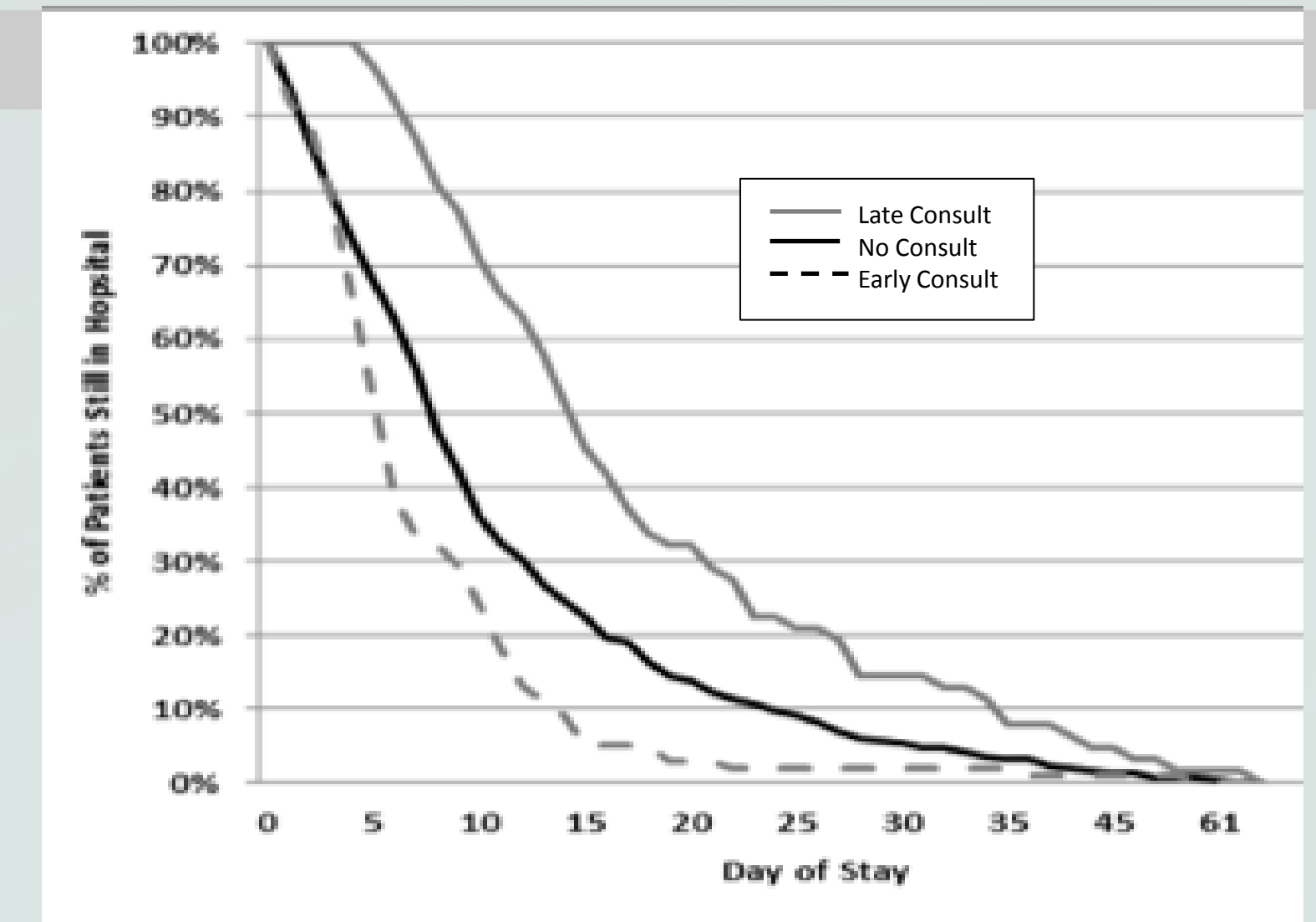


Figure 4: Survival curves stratified by consultation timing

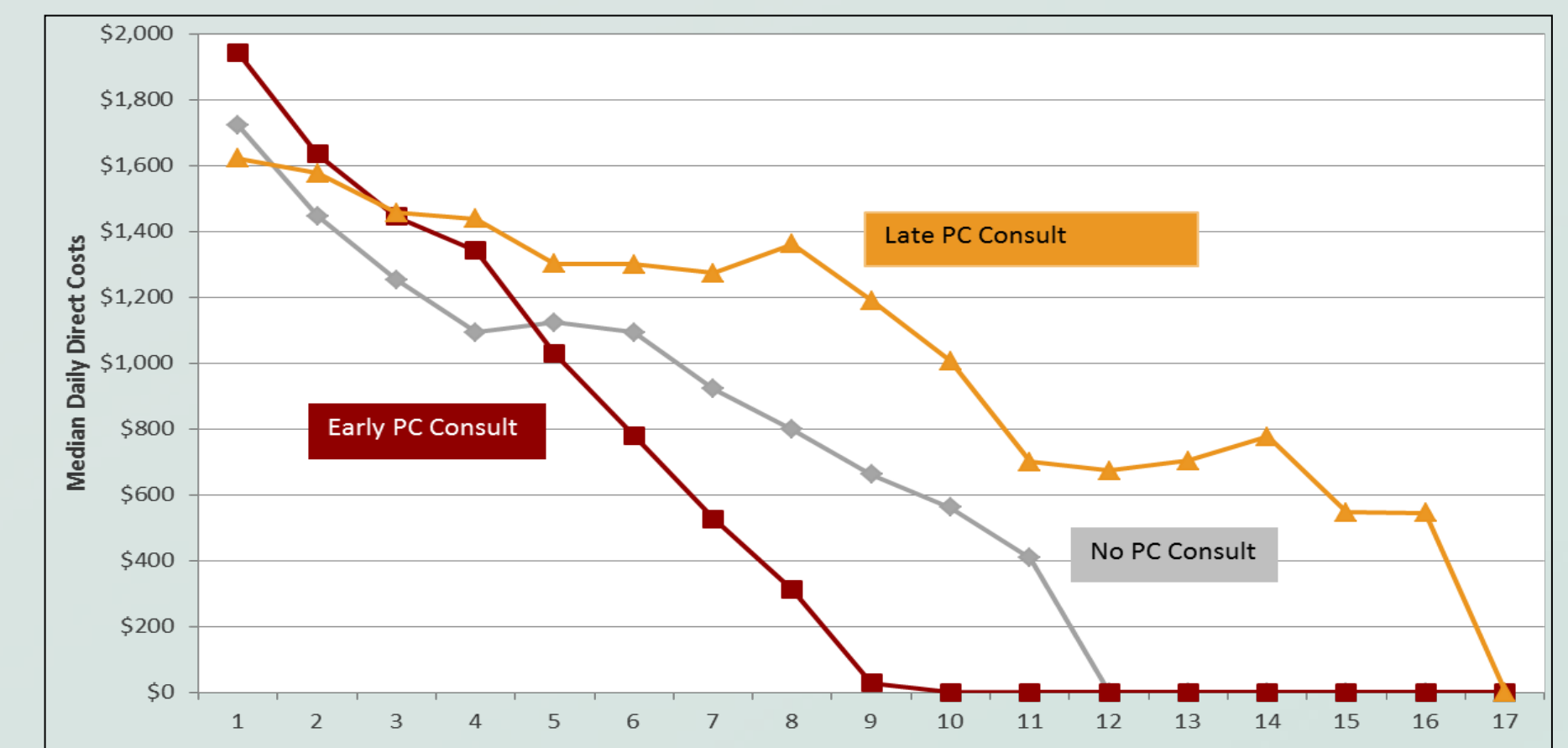


Figure 5: Median Daily Direct Costs by Consultation Status

CONCLUSIONS

- Patients who received palliative care consultations had higher rates of code status change to DNR, lower 30-day readmission rates, and were more likely to be discharged to hospice.
- Patients who received early palliative care consultations had shorter lengths of stay and lower direct costs
- The reported clinical and cost impact of palliative care strengthens the rationale for early palliative care screening and consultation in the ICU