

Resuscitation in an Oncologic Emergency Department: Incidence and Characteristics

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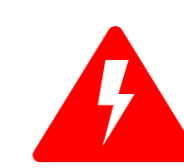
Introduction



- There is ongoing emphasis on early advanced care planning for cancer patients
- Updated survival data would assist in counseling patients
- Previous studies showed:
 - over half of cancer patients undergoing CPR achieve return of spontaneous circulation (ROSC),
 - Few survive to discharge, ranging from 12% to 14%. [1-2]
- We describe the occurrence, characteristics, and outcomes of outpatient resuscitation in an oncologic emergency department (ED) over the past 6 years

Methods

- Design: Retrospective observational cohort study; structured chart review; Hospital databases were utilized to gather visit statistics.
- Site: Emergency Department (ED) of a large, urban dedicated cancer center
- Study Period: March 2016 through August 2022
- Study Population: all patients requiring cardiopulmonary resuscitation in the ED, defined as Advanced Cardiovascular Life Support (ACLS) protocol, including CPR.
- Statistical analysis: descriptive statistics, univariate and multivariable logistic regression models reporting the odds ratio (OR) and the 95% confidence interval (95%CI).



Results

Figure 1. Study cohort flow diagram identifying patients with cancer who had resuscitation in the emergency department.

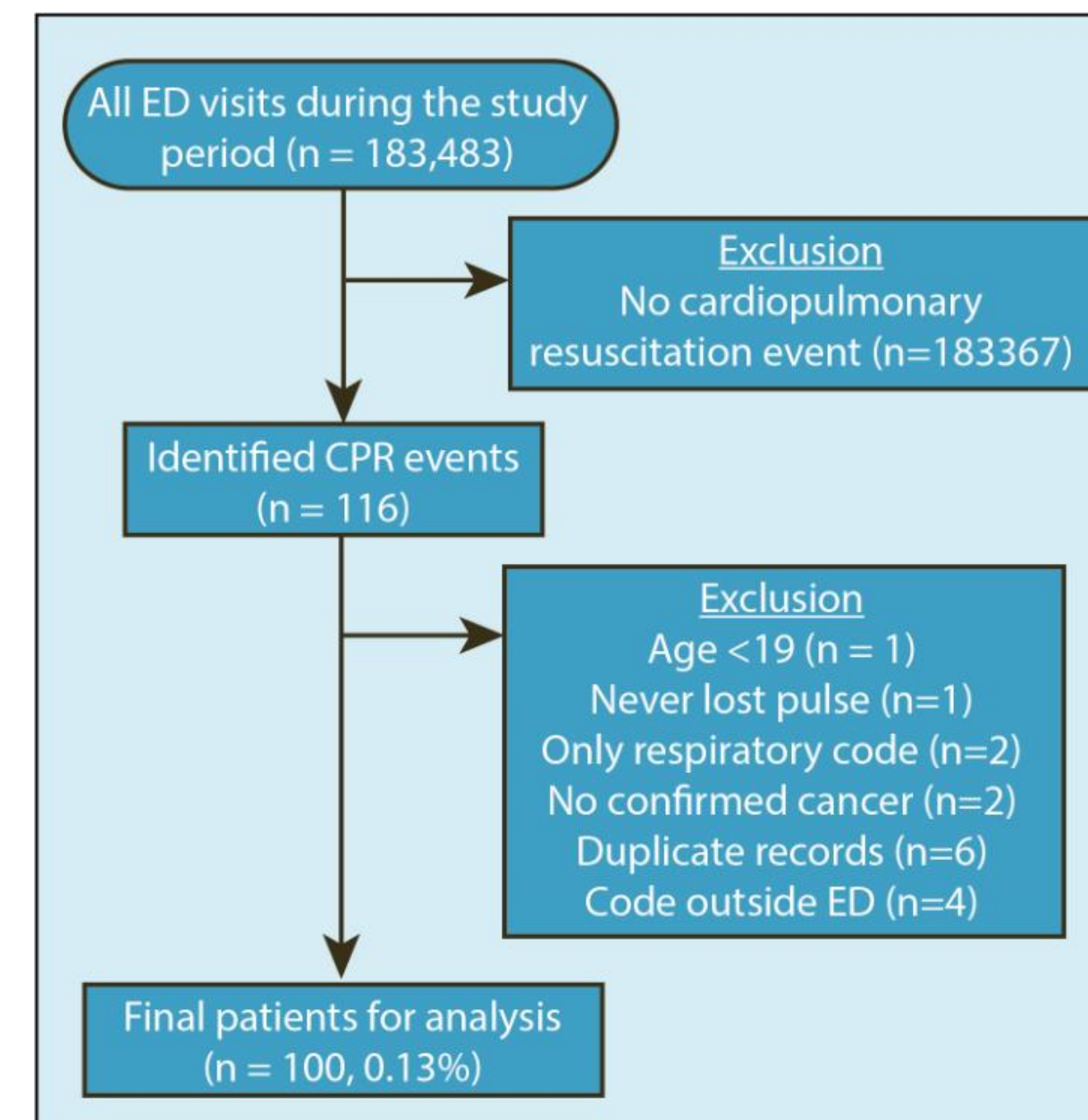


Table 2. Outcomes of cancer patients resuscitated in the emergency department.

Variable	N (%)
ROSC achieved	
No	33 (33.0)
Yes	67 (67.0)
Time to ROSC*, IQR, minutes	11 (6, 20)
Mortality	
In-hospital	85 (85.0)

* Only for patients who achieved ROSC

Figure 2: Cancer Types

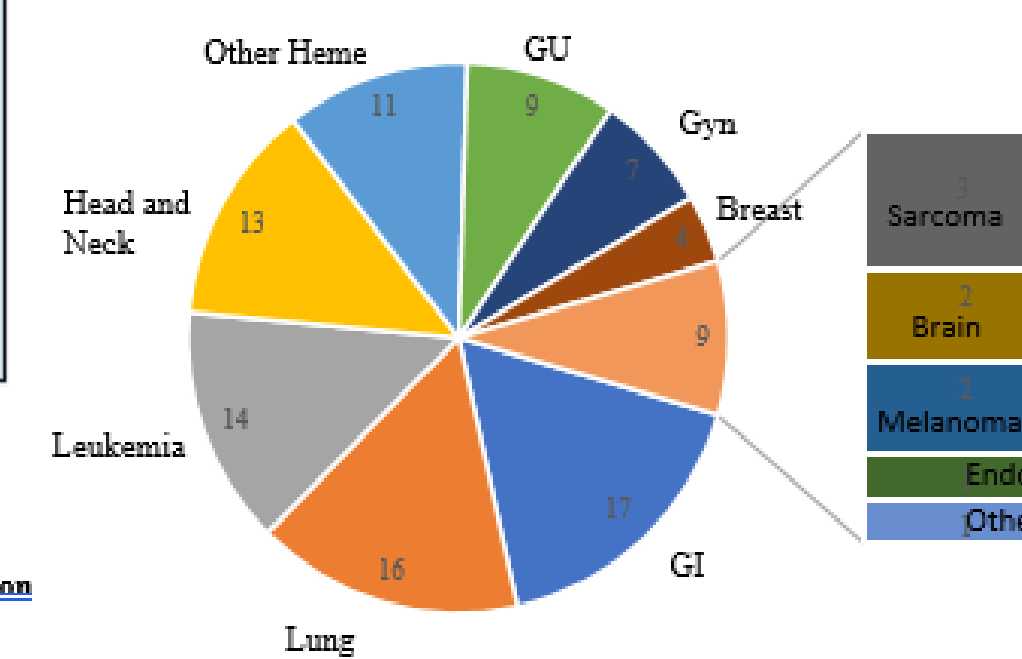
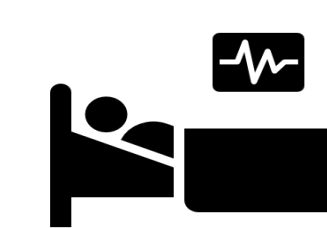
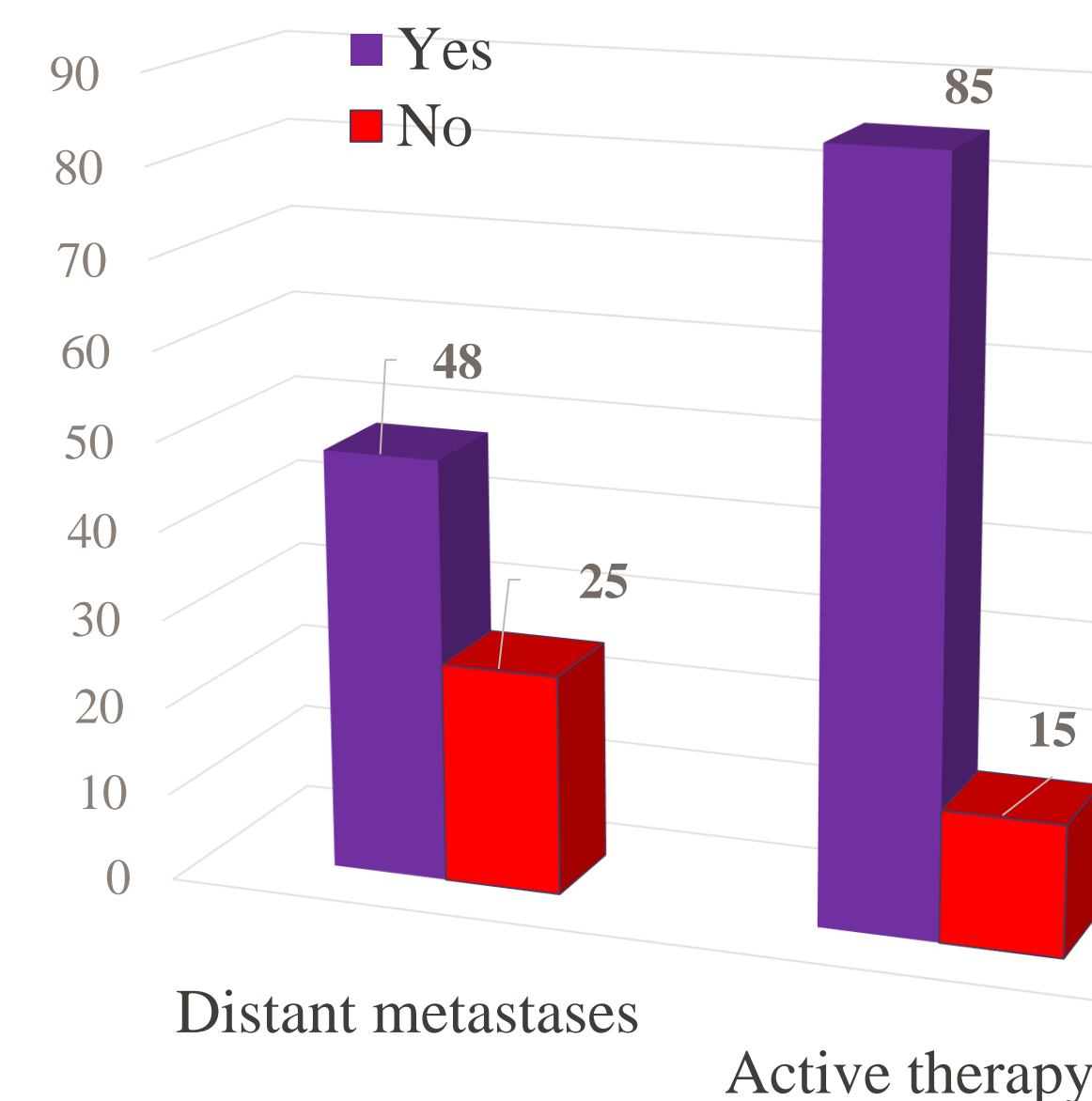


Table 1. Demographics and comorbidities for patients with cancer who had resuscitation in the emergency department.

Characteristic	N (%)
Total	100
Age, years, mean (SD)	62 (12)
Sex	
Female	50 (50.0)
Male	50 (50.0)
Race	
White or Caucasian	63 (63.0)
Black or African American	19 (19.0)
Asian	5 (5.0)
Other	13 (13.0)
Ethnicity	
Hispanic or Latino	16 (16.0)
Not Hispanic or Latino	84 (84.0)
CCI, median IQR	6 (5, 9)
Distant metastasis at the time of presentation*	
No	25 (34.2)
Yes	48 (65.8)
Active cancer therapy within past 2 months	
No	15 (15.0)
Yes	85 (85.0)

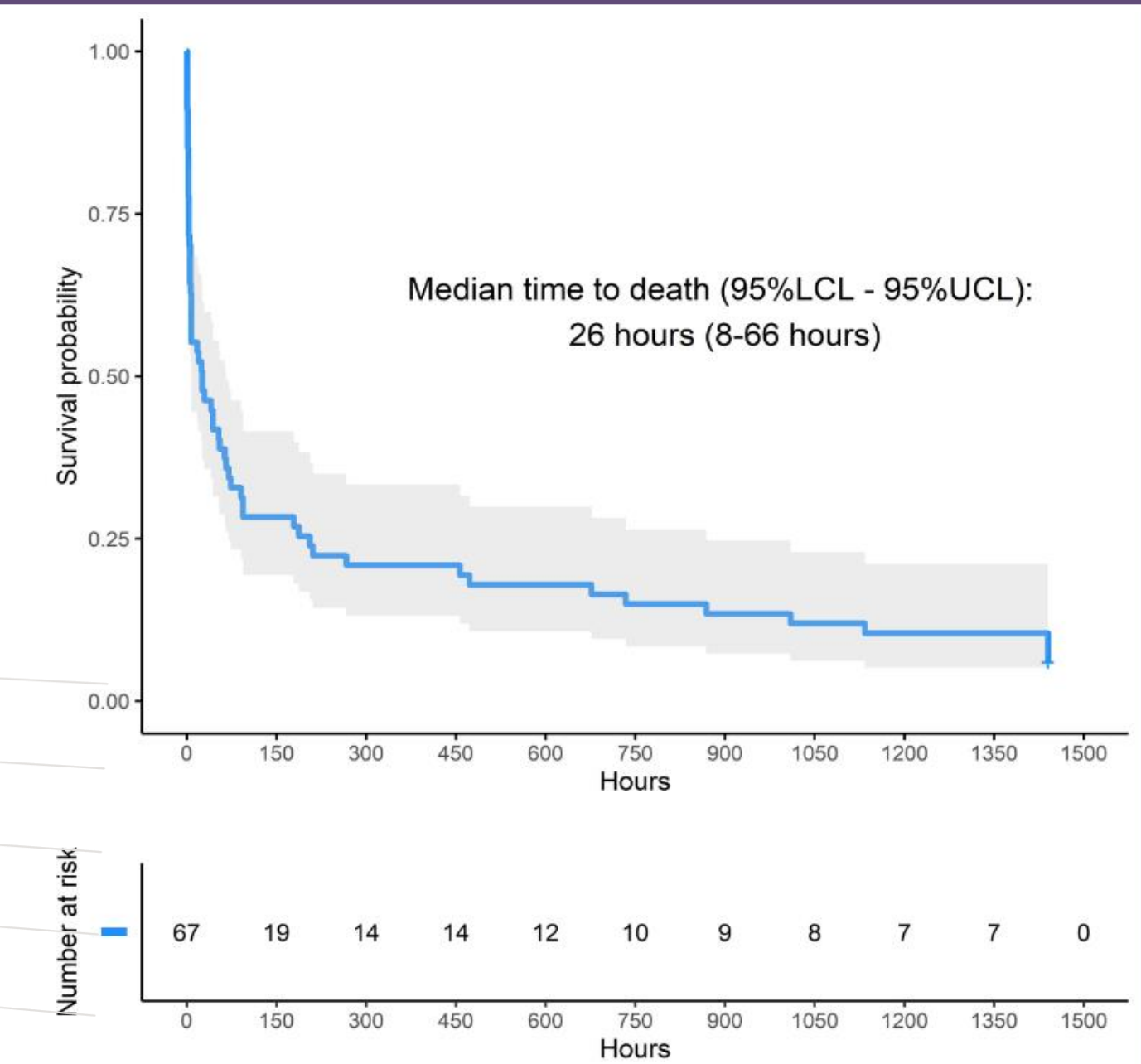
* Not counting patients with hematologic or central nervous system malignancy

Figure 3: Cancer Characteristics



Conclusion

- Resuscitation of cancer patients in the ED is infrequent compared to the general population (0.55 per 1000 patients v 1.2 per 1000 [3]).
- Despite initial successful resuscitation, survival to discharge remains low (15%), particularly among patients with advanced disease and high CCI scores.
- Deterioration occurs early: median time to death was 26 hours in our cohort
- Providing realistic survival projections may facilitate discussions regarding goals of care, particularly in time-sensitive encounters within the ED.



References

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3. Sung CW, Lu TC, Wang CH, Chou EH, Ko CH, Huang CH, Chen WJ, Tsai CL. In-Hospital Cardiac Arrest in United States Emergency Departments, 2010-2018. Front Cardiovasc Med. 2022 Apr 11;9:874461. doi: 10.3389/fcvm.2022.874461. PMID: 35479284; PMCID: PMC9035594.