

Central Venous Catheter Infections among the Adult Oncology Patients: A Retrospective, Single Irish Institution Experience

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Disclosure

- All authors have declared no conflicts of interest.



Introduction

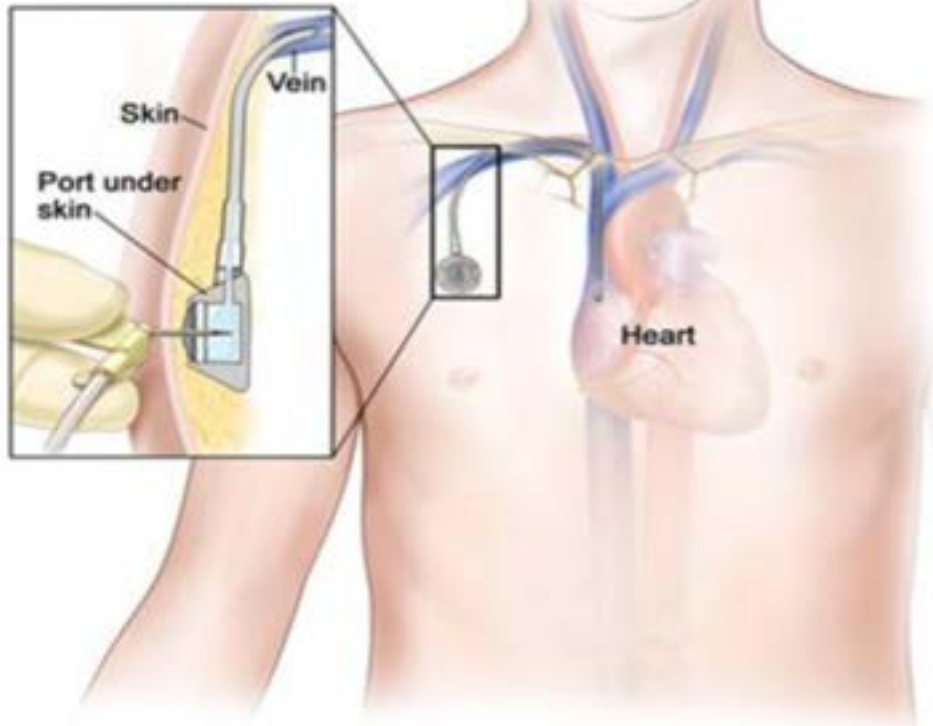
- Central venous catheter (CVC) insertion is common among the adult oncology population.
- CVC can facilitate:
 - Administration of cytotoxic chemotherapy or supportive medications
- However, CVC infections impacts:
 - Prolonged hospitalization
 - Delay in cytotoxic administration
 - Removal of CVC device
 - Sepsis-related mortality



Types of Central Venous Catheter

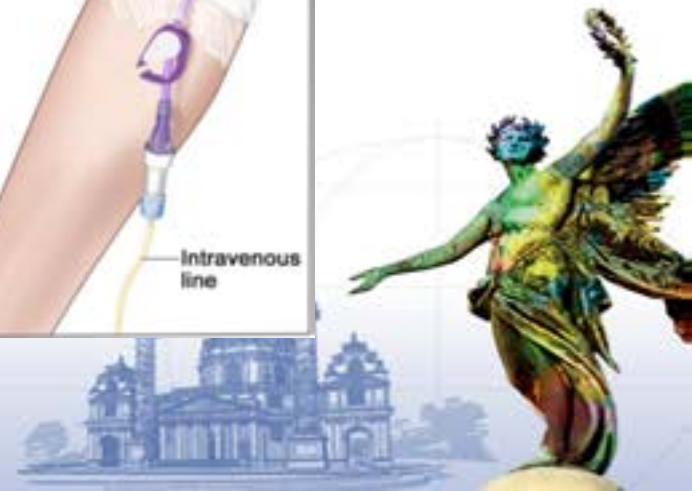
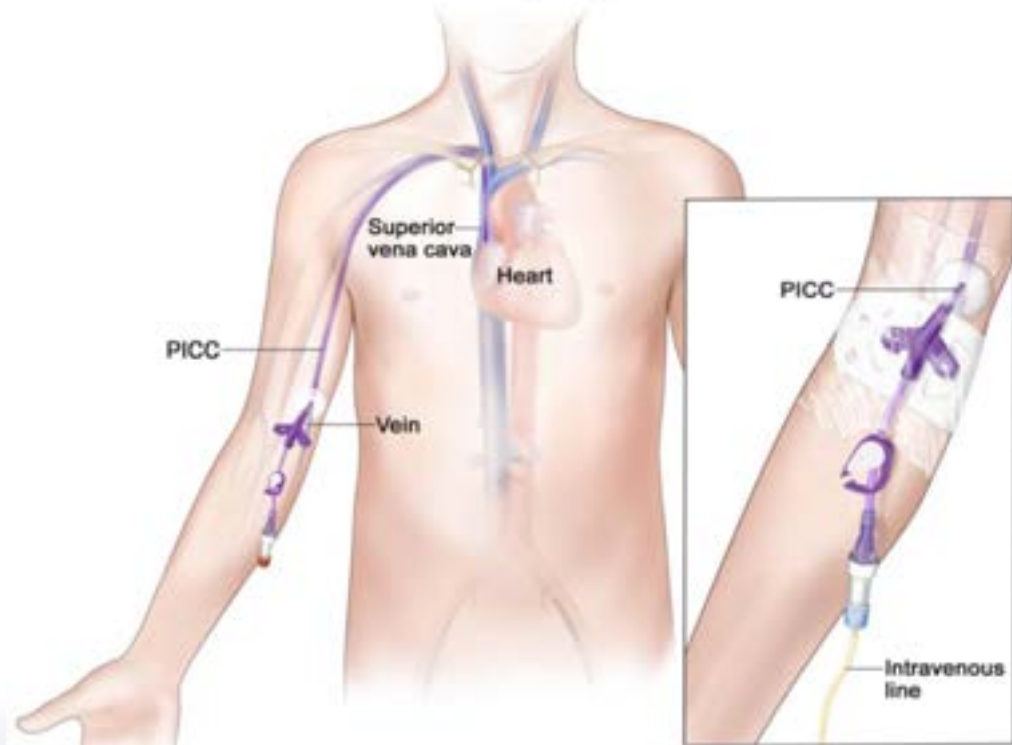
Subcutaneous port

Central Venous Internal Line:
Port



PICC (Peripherally inserted central catheter)

Peripherally Inserted Central
Catheter (PICC)



Study objective

- To perform a retrospective study to evaluate the impact of CVC infections in our institution.



Methodology

- Patients (pts) who had CVC insertions performed from January 2012 to April 2017 in Cork University Hospital (CUH) were included.
- Clinical characteristics extracted from electronic database included:
 - Age
 - Cancer subtype
 - Date of CVC insertion, infection and removal
 - Admission with CVC-related infection
 - Type of micro-organisms
 - Length of hospitalization
 - Mortality rate



Baseline Characteristics

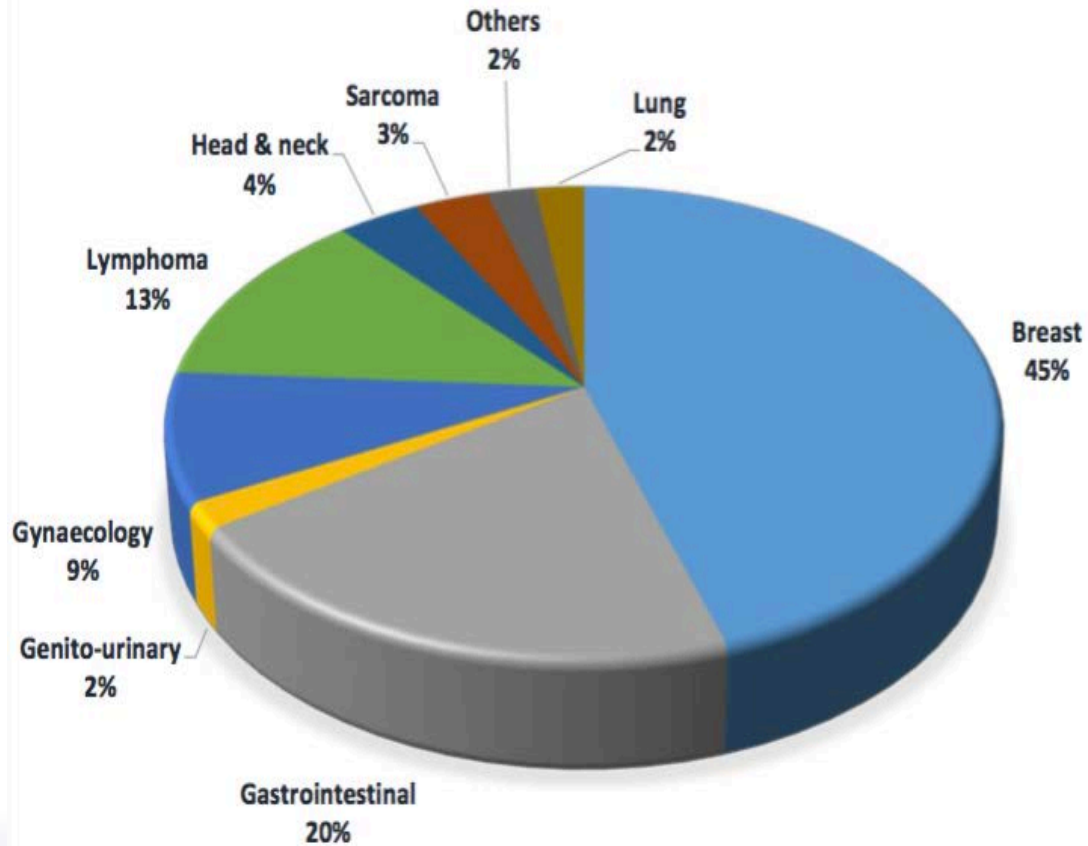


Demographics	Results n=731
Median age	57 (Range: 16 – 85)
Gender	
Female	544 (74%)
Male	187 (26%)
Types of CVC	
Porta-cath	454 (50%)
PICC (Peripherally inserted central catheter)	454 (50%)
Mean length of CVC in-situ prior to removal	250 days (Range: 4 – 1264)

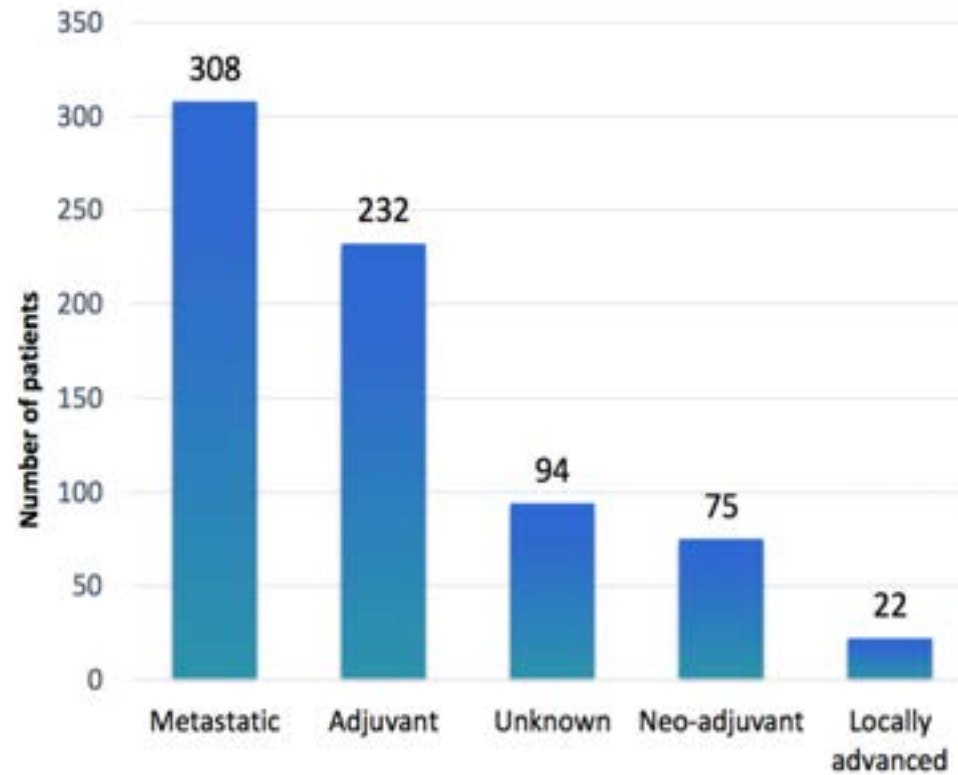


Cancer Subtypes and Aim of Therapy

CANCER SUBTYPES



AIM OF THERAPY



CVC-related Infection



2018

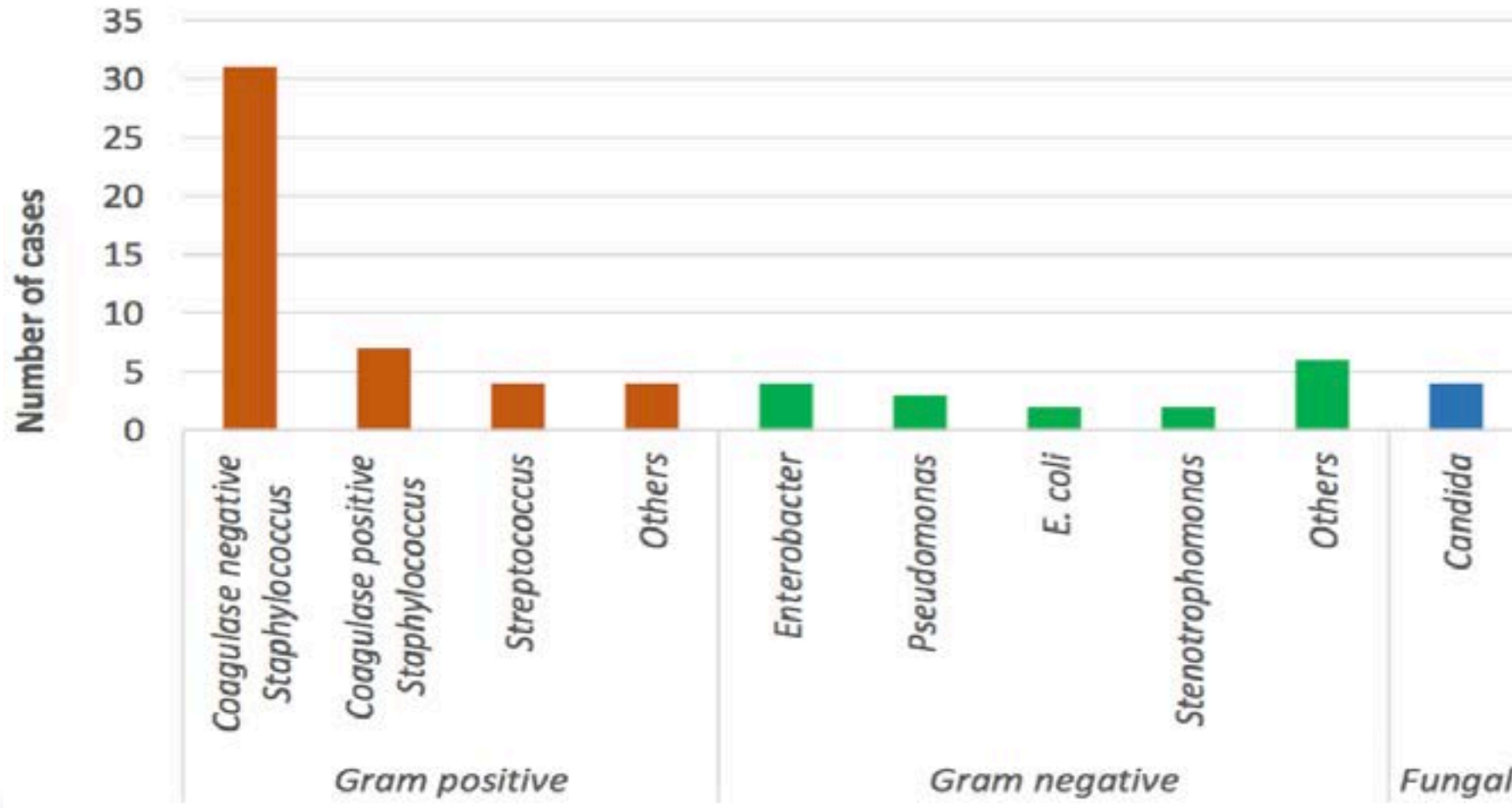
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SUPPORTIVE CARE
MAKES EXCELLENT
CANCER CARE POSSIBLE

	Results n=57, %
Median age	61 (Range: 18 – 75)
Gender	
Female	31 (54.4)
Male	26 (45.6)
Aim of therapy	
Metastatic	21 (36.8)
Unknown	18 (31.6)
Neo-adjuvant	10 (17.5)
Adjuvant	6 (10.5)
Locally advanced	2 (3.5)
Types of CVC-related infections	
PICC	40 (70.2)
Porta-cath	17 (29.8)
Mean length of hospitalization due to CVC-related infections	14.5 days (Range: 1 – 50)
Mortality due to CVC-related infections	4 (1)



Types of Micro-organisms in CVC-related Infections



Conclusion

- CVC used is associated with increased risk of infection among younger <66 years.
 - Cumulative incidence of CVC-related infection in our institution was 8%.
- PICC line insertion was associated with higher CVC-related infections.
- CVC-related infections increases burden of healthcare resources with:
 - Prolonged hospitalization
 - Compromising cancer care
- Local guidelines are essential in identifying pts suitable for CVC insertion.





THANK YOU

