



Outpatient Management of Pulmonary Embolism over Ten Years: Safe and Evolving practice

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INTRODUCTION

With the appointment of a Clinical Nurse specialist in 2010 data has been collected on management of venous thromboembolism (VTE).

The hospital has a policy around safe outpatient management of pulmonary embolism (PE) based upon the PESI score with some modifications.

AIM

- Collect data on all PE diagnoses between 2010 to 2019
- Look at the number of patients with PE treated as outpatient
- Look at the safety of outpatient PE management in terms of readmission and mortality
- Compare all PE diagnoses with new patients presenting with PE looking at management

METHOD

- Use the radiology system to collect positive PE diagnoses between 2010 to 2019
- Using patient management system look at whether they were managed as inpatient or outpatient
- Outpatient defined as being discharged within 24 hours of diagnosis
- Look at readmission and reason for outpatient managed PE and mortality at 28 days for all new PE's diagnosed

RESULTS

- Table below shows all PE events diagnosed in the study period and how managed.
- The patients presenting with symptoms of new PE in column 8 show these patients more likely to be treated as OP.
- Mortality much lower in OP compared to IP
- Readmission rates low over the study period

YEAR	Total PE (% Total VTE)	IP (%)	OP (%)	All Mortality < 28 days (IP)	All Mortality < 28 days (OP)	All OP Readmitted	Total New PE on admission	IP (%)	OP (%)
2010	355 (55)	239 (67)	116 (33)	29	2	4	249	145 (58)	104 (42)
2011	465 (59)	339 (73)	126 (27)	52	0	3	321	195 (61)	126 (39)
2012	485 (61)	304 (63)	181 (37)	42	3	1	336	161 (48)	175 (52)
2013	399 (55)	245 (61)	154 (39)	53	2	3	294	147 (50)	147 (50)
2014	440 (58)	267 (61)	173 (39)	13	6	1	292	137 (47)	155 (53)
2015	518 (63)	296 (57)	222 (43)	27	4	2	360	162 (45)	198 (55)
2016	477 (55)	270 (57)	207 (43)	31	0	4	246	80 (33)	166 (67)
2017	509 (61)	269 (53)	240 (47)	28	4	4	278	93 (33)	185 (67)
2018	483 (59)	268 (55)	215 (45)	26	1	7	297	129 (43)	168 (57)
2019	452 (59)	290 (64)	162 (36)	38	3	6	271	126 (46)	145 (54)
Total	4583 (59)	2787 (61)	1796 (39)	339	25	35	2944	1375 (47)	1569 (53)

IP Inpatient OP Outpatient

CONCLUSIONS

- OP Mortality significantly lower than IP acknowledging the IP group likely to be more unwell
- The number of readmissions associated with PE complications low over the study showing the safety of this patient management
- There has been an increase in total PE over the 10 years linked to scanners picking up smaller emboli
- This is a safe methodology (using the modified PESI score) with financial benefits saving over 5000 bed days.

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CONTACT INFORMATION

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