Contacts with deep vein thrombosis and pulmonary embolism in the Danish healthcare system from 2005-2016: A retrospective observational study

Background: The combination of Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE), Venous Thromboembolism (VTE), is the third most frequent cardiovascular disease. It can lead to chronic complications and can be lethal in the acute phase. As age is a risk factor for an increasing incidence of VTE, the growing elderly population is expected to increase the number of VTE. With this study, we aimed to investigate the number of VTE contacts in the Danish healthcare system from 2005-2016 with focus on yearly, monthly and daily variation.

Methods: We extracted data on patient contacts to all public Danish hospitals in the period from 2005-2016 with a diagnosis of either DVT or PE (ICD-10 diagnosis of I801, I802, I803, I808, I269, I269, I260 or I817D). Data will be presented descriptively as combined numbers but also stratified by weekday, month and year.

Results: We observed 57,804 contacts with DVT and 46,161 PE in the study period. DVT contacts was 5,005 (8.7%) in 2005 and decreased by 5.5% to 4,734 (8.2%) in 2016. For PE it we observed an increase of 96.8% from 2,579 (5.6%) in 2005 to 5,075 (11.0%) in 2016. When sampling months of all years, the month with the highest number of contacts for DVT were March with 5,150 (8.9%) and lowest being February with 4,550 (7.9%). For PE it was January with 4,350 (9.4%) and April with 3,505 (7.6%), respectively. Contacts with either DVT or PE was most likely during weekdays, Monday being the higher with 11,096 (19.2%) for DVT and 8,222 (17.8%) for PE. Weekends was least likely with Saturday being the lowest with 5,085 (8.8%) for DVT and 4,301 (9.3%) for PE.

Conclusion: Number of patient contacts to Danish hospitals in the period of 2005-2016 has been decreasing for DVT but increased for PE. We found a small variation in contacts with either diagnosis each month. For day of contact, the most likely was Monday and least likely Saturday.