Audit on the Use of T-MACS Decision Aid for Patients Presenting to ED with Chest Pain

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Abstract : Background T-MACS is a computer-based decision aid that 'rules in' and 'rules out' ACS using a combination of the presence or absence of six clinical features with only one biomarker measured on arrival: hs-cTnT. T-MACS had 99.3% negative predictive value and 98.7% sensitivity for ACS, 'ruling out' ACS in 40% of patients while 'ruling in' 5% at the highest risk. We aim at benchmarking the use of T-MACS which could help to conserve healthcare resources, facilitate early discharges, and ensure safe practice. Methodology Randomized retrospective data collection (n=300) was done from ED electronic records across 3 hospital sites within MFT over a period of 2 months. Data was analysed and compared by percentage for the usage of T-MACS, number of admissions/discharges, and in days for length of stay in hospital. Results MRI A&E had the maximum compliance with the use of T-MACS in the trust at 66%, with minimum admissions (44%) and an average length of stay of 1.825 days. NMG A&E had an extremely low compliance rate (8 %), with 75% admission and 3.387 days as the average length of stay. WYT A&E had no TMACS recorded, with a maximum of 79% admissions and the longest average length of stay at 5.07 days. Conclusion All three hospital sites had a RAG rating of 'RED' as per the compliance levels. The assurance level was calculated as 'Very Limited' across all sites. There was a positive correlation observed between compliance with TMACS and direct discharges from ED, thereby reducing the average length of stay for patients in the hospital.

Keywords: ACS, discharges, ED, T-MACS

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