Official Journal of the Irish Medical Organisation

Ir Med J; April 2022; Vol 115; No. 4; P590

April 29th, 2022

Improving Efficiency of the Phlebotomy Process Performed by Junior Doctors

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Dear Editor,

Non-Consultant Hospital Doctors (NCHDs) spend a significant amount of time acquiring the necessary equipment to complete routine tasks such as venepuncture, intravenous cannulation, and arterial blood gases. In an already overburdened healthcare system, every effort must be made to increase the efficiency of services and maximize use of limited resources.

It has been shown that improvement in the reliability of routine tasks is necessary if high quality healthcare is to be achieved[1].

We aimed to assess the attitudes of NCHDs on current phlebotomy practice and to qualify their beliefs in relation to impact on patient safety in a large tertiary university teaching hospital. Subsequently, our aim was to create a standardised phlebotomy proforma which would remain cost-neutral and sustainable.

An anonymous qualitative survey was distributed as an objective measurement tool to NCHDs (n=60) over a two week period to assess their experience of the current phlebotomy process.

We carried out a standardised timed test in which NCHDs were asked to locate a pre-determined standardised list of equipment required to carry out routine tasks.

We then designed and implemented a standardised proforma in conjunction with clinical nurse managers, phlebotomy services and healthcare assistants by identifying the equipment required to carry out routine tasks. We custom designed the pre-existing doctor's trolley on each ward to accommodate this equipment. We attached the proforma, including item name, to the doctor's trolley in each ward. We reassessed the standardised timed task after our intervention was implemented.

Results demonstrated that 100% of those surveyed believed that a significant amount of time was inefficiently spent locating equipment. 87% (n=52) believed that patient safety was compromised due to inability to ascertain this equipment in a timely manner. 100% of participants agreed that there no standardised system in place for the stocking of this equipment.

Prior to the organisation and standardisation of trolley equipment the set-up time in the timed task varied from 78 to 522 seconds (Mean= 303 seconds, SD = 141 seconds). Following intervention this reduced to a mean of 63 seconds (SD = 14 seconds).

We found a lack of communication to be the key feature contributing to inefficient stocking of equipment with communication a key component of high-quality healthcare[2]. The majority of junior doctors surveyed believed that delays in the completion of these routine tasks impacted upon patient safety with delays in clinical diagnosis and management, which has been shown to have a negative impact on patient outcome[3].

We identified the chain of communication required to successfully change this stocking process and effectively bridged a void in the conversation between those responsible for stocking equipment and those using the equipment.

It is important that we strive to make improvements in our healthcare system that will lead to improve patient safety and the overall morale of working staff. Improvement in the implementation of our most routine tasks will provide the building blocks for improved healthcare provision.

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References:

1. Resar RK. Making noncatastrophic health care processes reliable: Learning to walk before running in creating high-reliability organizations. Health Serv Res. 2006;41(4 Pt 2):1677-89
2. West MA, Guthrie JP, Dawson JF, Borrill CS, Carter M. Reducing patient mortality in hospitals: the role of human resource management. Journal of Organizational Behavior. 2006;27(7):983-1002.
3. Kumar P, Jordan M, Caesar J, Miller S. Improving the management of sepsis in a district general hospital by implementing the 'Sepsis Six' recommendations. BMJ Qual Improv Rep. 2015;4(1):u207871.w4032.