So you want to be a Medical Student Technician?

Freimane, K. Z., Callaghan, J. P., Kearney, G. P., & Hart, N. D. (2021). So you want to be a Medical Student Technician? *The Ulster Medical Journal*, *90*(3), 194-196. https://www.ums.ac.uk/090_3.html

Published in:
The Ulster Medical Journal

Document Version:
Publisher's PDF, also known as Version of record

Ulster Med J 2021;**90(3):**194-196

So you want to be a
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Accepted August 2021

INTRODUCTION

In March of 2020, the COVID-19 pandemic brought life as we knew it to an abrupt halt and the world of medical education was no different. In-person clinical placements were temporarily suspended for medical students across the United Kingdom (UK) and worldwide. The Medical Schools Council promptly released guidance on employment or volunteering of medical students within the National Health Service (NHS) in the UK to support the pandemic response[1]. Within a day of this guidance being issued, discussions between the medical school at Queen's University Belfast (QUB) and the five Health and Social Care Trusts across Northern Ireland led to the establishment of the role of the "Medical Student Technician" (MST). Similar arrangements were seen across the UK[2], and indeed the world[3,4,5], with some medical schools even temporarily pivoting their entire medical curricula to aid the COVID-19 response, claiming that "medical students are needed just as urgently as ventilators"[6].

The wide-ranging implications of this nascent MST role are of interest to medical students, medical educators, healthcare service providers and patients alike. Here we present what the role has involved, some insights into being an MST and some reflections on how the role might evolve. It will reflect our personal experiences in addition to conversations with peers who participated in these roles. It is worth remembering that these roles were developed in a time of uncertainty and unprecedented flux.

WHAT IS A MEDICAL STUDENT TECHNICIAN?

The initial workforce appeal for MSTs cited an "urgent need of support" to "join the fight against COVID-19". It mentioned "working with colleagues" and "learning skills fundamental in patient care"[7]. The role was devised primarily for students in clinical years (third, fourth and fifth years) and, although it enabled access to clinical settings, it was not envisioned as a substitute for traditional clinical placements. Across all five Health and Social Care Trusts in Northern Ireland, the number of MSTs initially employed well exceeded one hundred. Some training for these roles was centralised, however, many MSTs received training locally in specific roles and on the job training.

The MSTs were placed in a diverse range of clinical environments including emergency medicine departments, various hospital wards, urgent care centres, maternity units, eye casualty, COVID-19 hubs and testing centres. Their responsibilities ranged from venepuncture, cannulation, and carrying out electrocardiograms, to helping prepare discharge summaries for patients. Many students considered themselves 'a spare pair of hands' for the teams they were based within. Less commonly and depending on the work environment, MSTs carried out specific tasks such as using equipment in the intensive care unit, log-rolling patients, performing ophthalmological assessments in eye casualty or suturing in emergency departments. No two posts were the same and daily activities varied widely. An entire day of venepuncture in an antibody testing facility was useful for refining venepuncture technique, but a role in a ward-based setting demanded a broader contribution to patient care. Many MSTs undertook important nursing and healthcare assistant activities such as patient observations or personal care. The position was designed with a clinical focus in mind, but a minority of students worked in non-clinical roles such as office-based work. Several MSTs also changed roles when different opportunities arose, or service requirements dictated this to be necessary. Shift patterns were generally variable, with many MSTs valuing flexibility in their work schedules.

The novel nature of the role meant many students found they had to use their own initiative to establish their place within different teams and find meaningful ways to contribute. This might be attributable to a job description that, in the circumstances, was left deliberately open. However, this was not necessarily a limitation as many students appreciated the need to adopt a more pro-active approach, which could have been beneficial in fostering their confidence and autonomy. These trailblazers have undoubtedly helped to better define the job role for the future.

THE BENEFITS OF BEING A MEDICAL STUDENT TECHNICIAN

Being an MST was more than just an extra source of income or an opportunity for students to legitimately leave the house during the months of lockdown. It has given medical students in QUB the unique experience of playing an active part in the pandemic healthcare workforce response. The sense of responsibility and belonging that resulted suggests that a more formal integration of medical students within the multi-disciplinary team could be a powerful way to develop future doctors' skills and professional identities.

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Immersion of medical students in clinical teams resulted in increased confidence, improved understanding of what will be expected from them as Foundation Programme doctors, improved situational awareness in clinical settings and even an appreciation of workplace etiquette and politics. These essential, non-practical skills are difficult to test and even harder to teach on medical school placements. In her book, "Your Life In My Hands"[8], Dr Rachel Clarke describes feeling wholly ill-equipped with some of these skills on her first night shift as a newly qualified doctor. Which team to call in a peri-arrest situation and knowledge of critical language used among healthcare staff could be considered more crucial for a newly qualified doctor than being able to list all the causes of acute pancreatitis*. It is difficult to acquire these skills without spending time embedded in a clinical team, something that was integral to the MST role. MSTs were afforded the opportunity to contribute to patient care and in so doing improved their relationships with staff and cemented their role as medical professionals. Healthcare colleagues could get to know the MSTs in a way not always possible with students on placements and it is possible that patients might look more favourably on busy MSTs than apparently 'loitering' medical students.

An important benefit of being an MST was, undeniably, the prospect of receiving a salary. Paid employment for medical students was not universal during the pandemic across the UK[9]. Nevertheless, in Northern Ireland, MST was a paid position which presented an alternative to jobs such as healthcare assistant or retail work. Aside from helping with the financial burden of being a student, remuneration allowed MSTs to be *learning while earning*. For some, it maintained clinical skills during time out of clinical training to undertake an intercalated degree, for others it provided a more fluid transition between fourth and fifth years of medical school and for a few it even replaced a cancelled elective.

Additionally, the benefits of employing medical students in place of agency staff is of possible economic interest to the NHS. Formally mobilising this relatively untapped resource could be one step towards addressing the intense pressure the healthcare system currently faces. However, we must be wary that employing MSTs is not seen as the only solution to workforce issues and ensure that no student feels obliged to participate in this voluntary role given the numerous personal factors that affect a student's choice to seek employment. Already having another job, having personal or family commitments or concerns regarding COVID-19 infection are just some reasons that might have influenced a student not to become an MST. In the interest of equal representation, it would be beneficial to gain further insight from these students.

REFLECTION AND FUTURE DEVELOPMENT OF THE MST ROLE

It is perhaps unsurprising, given the pace and circumstances under which these roles were developed that reflection and refinement at this stage will be prudent. As the roles were developed and launched within five independent Trusts, the organisational aspects including recruitment, payroll and training differed a great deal. With the variety of roles and clinical settings, the experiences of MSTs have been relatively heterogeneous, which, although giving rise to diverse learning opportunities, may have left some MSTs with unfilled expectations. Preparation, support and orientation is required on the part of MSTs and the employing Trusts to ensure the best experiences and outcomes for all involved. These observations should not undermine the huge potential that the development of the roles has brought about. As the dust settles, it will be crucial to reflect on the long-term value and sustainability of the MST roles.

Overall, from a student perspective, the arguments in favour of continuing MST employment are clear and abundant; anecdotally many MSTs were delighted to be paid to increase their confidence, knowledge and sense of professionalism whilst supporting a service under pressure. However, positive feedback from students is not enough evidence to advise replacing classical clinical placements with MST-like apprenticeships. The breadth of experiences within placements cannot be guaranteed in MST jobs and compared to placements, learning was ad hoc and fortuitous. Formal clinical placements involve prescribed learning objectives and in many clinical settings it would not be appropriate for a student to be seen as a worker rather than a learner. Nevertheless, the considerable growth in the MSTs' practical and interpersonal skills, and confidence in their identity as future doctors, is of great interest to medical educators and future medical students. Further exploration of how the MST format shapes clinical experiences and learning is necessary to formally assess the benefits, shortcomings and feasibility of such a scheme continuing.

CONCLUSION

The MST role was borne out of a challenging and uncertain time but given the very apparent value of MSTs to all involved parties, it is our hope that the position will be established further and made widely accessible to interested students. Nonetheless, benefits and drawbacks of the role must be further explored and weighed up against the logistical challenges such an offer would pose. Undeniably, these roles have provided useful experiential learning opportunities for students fortunate enough to be able to avail of them and in turn, a motivated and engaged workforce for the service. We propose, as an adjunct to traditional clinical placements, the MST role might better prepare future generations of doctors for the workplace challenges they will face.

** Idiopathic, Gallstones, Ethanol, Trauma, Steroids, Mumps/ Malignancy, Autoimmune, Scorpion bites, Hypercalcaemia/ Hypertriglyceridaemia, ERCP, Drugs*

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