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Advent of the virtual multidisciplinary team meeting: do remote meetings work?

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Abstract

The multidisciplinary team (MDT) is key to the management and decision-making process for head and neck cancer. The sudden shift to virtual meetings due to the COVID-19 pandemic has been arguably the most dramatic change since inception of the MDT, and we know of no studies that have evaluated the head and neck MDT since this change in working. A preliminary questionnaire was designed and trialled, based on guidance on MDT qualities and measurable outcomes as per published national guidelines. A questionnaire was then distributed to all head and neck MDTs in the UK. We obtained 97 individual responses, from 27 units. Our results indicated that most clinicians (70.1%) felt that decision making was unchanged. Most (84.5%) also felt that technology resources were satisfactory and that some aspects of communication (viewing of images and slides) were as good or improved (76.3%). However, there were notable deficiencies with remote working. In particular, the majority of respondents perceived that engagement (43.9%), teamworking (69.1%), and training (47.7%) were worse since they moved to remote meetings. Our study suggests mixed opinions of virtual meetings. Our results demonstrate that despite remote working, head and neck MDT participants feel that they have largely been able to perform in most indicators. However, we should consider solutions to the perceived deficiencies in engagement, training, teamworking, and communication. To our knowledge, this is the first study to evaluate virtual head and neck MDT meetings, and the largest study of virtual MDTs and remote working within healthcare.

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Keywords: Oncology; MDT; virtual; meeting; remote; working

Introduction

The multidisciplinary team (MDT) is a sine qua non in the management of head and neck cancer. Its history can be traced back to the Calman-Hine report in 1995, which outlined significant variations in cancer care in the UK, and recommended that multi-disciplinary management is essential and each cancer unit should have arrangements for non-surgical and oncological input. Evidence has shown that this MDT model of care has improved patient outcomes and reduced cancer-related mortality.

Regular meetings between team members have become key to decision making and treatment planning. The NHS has formally defined the MDT as a group of professionals from one or more clinical disciplines who together make decisions regarding recommended treatment of individual patients.

Over the past 25 years the MDT has evolved through participant-led and technology-led iterations and changes. To mitigate the spread of coronavirus in March 2020, the NHS published recommendations for virtual attendance at cancer MDTs. Arguably, this move to a ‘virtual MDT’, has been one of the greatest changes to our way of working in recent memory.

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This paper defines a virtual MDT as being *any* MDT meeting which has been conducted over a digital/virtual conferencing medium, and where the majority of participants connect remotely.

Despite this paradigm shift, little is known of the effects on the functioning of the team. This qualitative study was therefore designed to analyse the experiences of head and neck MDT participants across the UK since moving to virtual meetings. It aimed to understand how effectively head and neck MDTs have been conducted since the move to virtual meetings (focusing on data security, confidentiality, decision making, efficiency, and organisation), to understand how members perceived their experiences of the virtual meetings (with a focus on teamwork, training, and engagement), and also to determine underlying issues with virtual MDT meetings and elicit possible improvements.

**Method**

**Questionnaire design**

This focused on understanding how well the MDT performed in key indicators. These were defined after a literature review of MDT performance indicators and a preliminary group discussion amongst members of a single-unit MDT (Northwick Park Hospital, London). They included: communication, data protection, decision making, training, engagement, technology, and organisation/coordination.

These are important domains pertaining to virtual MDT meetings for two reasons: first, they are fundamental tenets that have been used historically to evaluate cancer MDTs (previous NHS guidelines have outlined them as important to the effective running of an MDT),

and secondly, previous research evaluating ‘in-person’ MDT practice has drawn on them.

A preliminary questionnaire was designed and evaluated by a small number of MDT members. Feedback on coherence, simplicity, content, and ease of completion was sought. The questionnaire was then amended to its final version, which can be found in the Appendix.

**Questionnaire distribution**

Between December 2020 and February 2021 our team at Northwick Park Hospital distributed, via email link, questionnaires to 39 different head and neck cancer MDTs across the United Kingdom.

Regional units that offer both surgical and oncological management of head and neck malignancies, including ENT, OMFS, skull base, thyroid, and oncology teams, were contacted. The questionnaire was distributed to MDT coordinators, with a request to forward it on to their MDT participant mailing list.

The questionnaire was anonymised, and individual responses kept confidential to encourage sincere responses. It was distributed to all roles within the MDT, aiming to record valid experiences for the whole of the team, and was distributed to units in England, Scotland, Wales, and Northern Ireland to improve applicability and obtain a representative sample of practice.

**Ethics**

The study did not require ethics approval and was conducted in accordance with our regional institutional guidance (London North West Healthcare University NHS Trust).

**Findings**

**Demographics**

A total of 97 responses were received from members of 27 different head and neck MDTs. These included teams from all four countries of the United Kingdom. Not all MDT coordinators responded or could be contacted, and some did not agree to the questionnaire being distributed to their mailing list. Finally, in some units no participants responded. All healthcare roles within the MDT responded (Table 1) with a range of training levels (Fig. 1). No distinction was made between head and neck cancer teams (such as ENT/OMFS/skull base, or thyroid).

**Communication, chairing, and decision making**

In total, 38.1% of MDT members, the largest group, believed that the chairing and recording of outcomes in virtual MDTs was more difficult, compared with only 16.5% who felt it was easier than it was in person.
The majority of respondents (58.8%) believed that communication during virtual meetings was worse than it was in person, but despite this, most members felt that decision making was unchanged (70.1%). However, 19.6% of participants felt that decision making was worse. Most respondents felt that organisation and time efficiency were as good (42.3%), if not better (40.2%), since moving to remote meetings.

**Teamworking and engagement**

In total, 69.1% believed that interpersonal relationships and teamworking had deteriorated since moving to virtual meetings, and 43.9% felt that engagement of all specialties with the MDT process had decreased. This is in comparison to only 18.2% who felt that engagement by all specialties had improved.

**Training and education**

The largest group (47.7%) reported that training was worse in virtual MDTs than in in-person meetings. This was in comparison to only 13.4% who felt that training was better, and 30.4% who felt it was the same as it was in person. Junior trainees felt most strongly (70%) that training had deteriorated since transitioning to virtual meetings.

**Technology and security**

In total, 84.5% of the respondents believed that their technology resources were satisfactory, despite only 16.5% having frequently used virtual conferencing software before. Data security and patient confidentiality were reported as being unaffected by the switch to virtual working by 79.4% of respondents.

**The future**

Most respondents wished to return to in-person meetings, but with an option to attend virtually (72.2%). A smaller group (11.4%) wished to return to in-person meetings only.

**Discussion**

**Advantages**

A large proportion of respondents felt that the MDT was able to function in key domains despite remote working. Seventy per cent of members believed that decision making was unaffected, and most felt that efficiency and organisation were at least as good (42.3%), or even better (40.2%), since the move to virtual MDT. It seems that computer/internet resources have been satisfactory and most members (79.4%) felt that patient confidentiality was unaffected by the use of new technologies. Most members felt that viewing imaging and histological slides was at least as good (35.1%) or even better (41.2%) with virtual conferencing.

One response suggested that in-person meetings had problems: *rooms were unfit for purpose...difficult to see scans...unnecessary travel.* Key improvements include better flexibility and ensuring that spoke sites can dial in remotely. One respondent commented, *if working from home or starting later due to child care needs, this flexibility has been excellent.* Another suggested that virtual meetings are important for smaller units...when staff have other commitments in other centres but can still link in.

Our study suggests that on the whole, virtual head and neck MDT meetings are perceived to be a suitable substitute to in-person working in some areas (such as decision making, confidentiality, and data security), with clear improvements in the flexibility of working for both individuals and spoke sites. As this already was the direction in which such meetings were heading, the NHS being forced to adopt such technologies may be seen as an innovative advantage.

**Disadvantages and solutions**

There have, however, been notable disadvantages. It is telling that the majority (83.5%) of respondents wished to return to some form of in-person MDT (either fully or with an option to attend remotely).

Remote working has affected teamworking, communication, and training. Furthermore, the shift has made chairing the MDT more difficult. Whilst most (70.1%) felt that decision making was unchanged, nearly one in five respondents (19.6%) felt that decision making was worse. Interestingly, the majority who felt this were consultants or those who had completed training (78%). This may reflect the difficulty of having a nuanced discussion over a virtual platform, as one respondent suggested: *It is difficult to add comments when you can’t use your body language to signal you have something to say. Once you’ve unmuted, the moment to make your point has gone or you end up interrupting/talking over someone.*

This survey has raised concerns regarding a perceived deterioration in teamworking and training. Published reports have shown that MDTs with improved communication and teamworking have better outcomes. Training within MDT meetings is recognised by the Royal College of Surgeons, and published research has shown that it is important for the development of non-technical skills.

It may be that since meetings have moved online, junior trainees are not able to participate in them easily, as they may be restricted to core MDT members. Related to this is the need to improve engagement. This was echoed in the comments section, where multiple respondents felt that virtual meetings made it more difficult for less confident members to speak. One respondent replied that as a consequence, the virtual MDT has resulted in very few voices speaking in the MDT. Through increasing the engagement with junior trainees we may be able to improve the training opportunities too.

Several respondents suggested that MDT chairs should proactively engage each core member in the discussion and decision-making process. Differences in behaviour, background noise, and camera use seemed to be a source of
frustration. As a consequence, this seemed to contribute to challenges in chairing the MDT. A theme within the responses was that both members and chairs required some form of training. One respondent suggested the need for a standard operating procedure, and another suggested the need for house rules for all the participants involved.

Limitations and confounders of this study

During this time, attendance has often been limited to core members of the MDT. This, combined with the redeployment of staff, may have had a confounding effect on the interpretation of our results regarding the negative effects on training.

The move to virtual meetings has been one of necessity for social distancing. It is likely that social distancing itself has had a confounding effect on perceived deteriorations in communication, teamwork and training. Arguably, some of the disadvantages of virtual meetings would not be fully removed by meeting in person instead as, regardless of whether people meet virtually, particular MDT members would be likely to dominate.

Finally, although our study surveyed a broad range of roles within the MDT, surgeons were the overwhelming majority (43.3%). This may have skewed the results to favour this cohort’s perceptions against other smaller cohorts.

The future

As society re-opens and hospitals resume normal services, the question remains as to whether our new way of virtual conferencing should continue. As experience and comfort with virtual meetings improves, some of these participants’ views may change to favour online MDTs. Alternatively, hybrid (in-person meeting with additional remote log-ins) meetings may become the norm.

Due to geographical necessity, some regions had already had experience of virtual meetings and virtual MDTs prior to the pandemic. However, only 6.3% of respondents who had frequently used virtual conferencing software prior to the pandemic wanted to continue with virtual meetings only. This is compared to 15.5% of all respondents.

Finally, we are yet to feel the long-term impact of COVID-19 on cancer services. There have been national discussions about centralising services with larger cancer hubs, so virtual meetings may become a necessity that we will have to adapt to.

Further work

Our study did not examine the exact technologies or different ways of virtual working amongst the units. This could be researched in the future to understand how we could improve remote working. There may be scope to repeat this study in a year’s time to ascertain whether the views of MDT participants change as we become more adept at virtual conferencing, or even if it continues after the pandemic resolves.

Conclusion

To our knowledge, this is the broadest study of MDT members’ experiences of virtual meetings and remote working within healthcare, and the only study of head and neck MDT members’ experiences of virtual meetings in the literature. The results show mixed opinions about the role of remote/virtual head and neck MDTs in the UK, but they suggest that virtual meetings can adequately enable efficient practice and decision-making. They also have some clear advantages, such as image displaying and work flexibility. However, there are notable concerns such as a perception of a reduction in teamwork and training, and communication problems. These must be addressed if we are to optimise the opportunities that remote working affords, and ensure that the interpersonal aspects of the MDT are not lost.

It is likely that virtual meetings in some form are likely to stay (as an addition to in-person meetings), and this is reflected in our respondents’ wishes. As such, it behoves us to optimise and improve them to ensure that they can benefit all aspects of the cancer MDT.

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patients’ permission

Ethics approval not required. Patients’ permission not applicable.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.bjoms.2021.05.015.

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