

Reclaiming time and space from the MDT Black Hole

Barco Synergi™

Executive summary

Multidisciplinary Team Meetings (MDT) for Oncology are an integral component of gold standard care for cancer patients. They bring together care providers with specialists and include oncologists, physicians, surgeons, specialist care nurses, radiologists and pathologists. The meetings provide consistency in the provision of evidence-based care, optimizing management and reducing variability in treatment provision. With the move towards regional care networks using hub and spoke models, the MDT members frequently need to come together from multiple different locations.

The number and complexity of patient cases needing discussion has also grown significantly due to an aging population and a rising number of treatment options. This demand exerts pressure on all aspects of patient management, meaning it isn't feasible to increase MDT capacity proportionally. This paper explores the challenges in the MDT process and proposes ways that the Barco Synergi Solution can improve efficiency and effectiveness, both for the MDT pathway and elsewhere within the Oncology patient management process.

MDT workflow

Depending on the clinical case, MDTs use a variety of approaches for sharing information with the meeting participants. Preparing for the MDTB meetings requires input from radiologists, pathologists, oncologists, cancer surgeons, the clinicians managing the patient (physician or surgeon), and specialist cancer nurses and clerical staff, in addition to the MDT coordinator who manages the meeting. The process involves reviewing the radiology, pathology and performance status (condition and physical fitness) of the patient to ensure that all options can be assessed to provide the most appropriate treatment.

Workload challenges

Against this back drop, there are multiple competing pressures. It is vital that each patient case is afforded the highest quality of input to arrive at consensus decisions for the best treatment plan. However the number of patients being discussed is inexorably rising due to rise in cancer diagnosis. For example in the UK¹ alone, cancer diagnosis shall increase from 357,000 patients in 2014 to an estimated 500,000 patients by 2034. In addition, in many countries there are specific Cancer Pathway targets with financial penalties associated with breaches².

Reducing the MDT pathway (i.e. time to treatment) will maximize the time available to achieve

the best practice 62-day target³. Some of the main challenges are:

- The amount of data that needs to be discussed for each patient is rising exponentially, including CT, PET-imaging, histology, tumour marker, and patient performance status.
- The number of core team members required has increased.
- Different institutions use differing health informatics systems including different vendors for their EHR, RIS, PACS, and LIMS, further increasing the preparation time required.

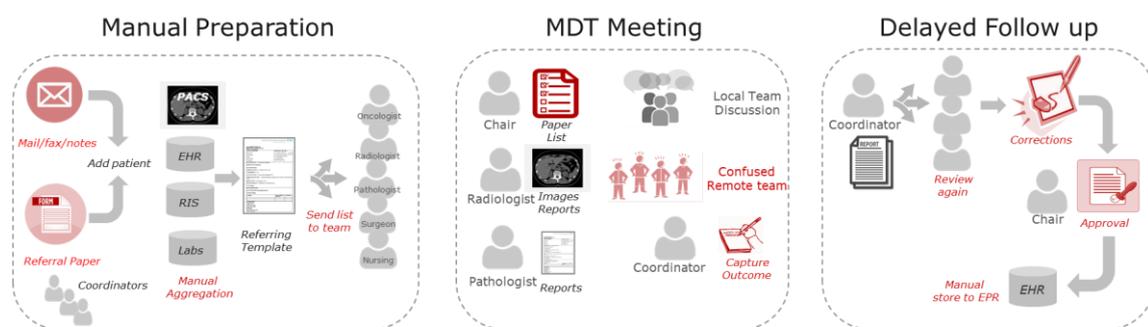
Despite all these factors, there is limited time available to conduct the MDT discussion, particularly when you consider that:

- Any one department or specialist may need to contribute to multiple MDTs a week - the same specialists face increasingly stringent pressures to provide definitive care under progressively reduced turnaround times to a greater number of patients. Research suggests that the capacity gap in the UK for healthcare workforce will rise to 15% by 2020 compared to 2010 levels.⁴
- The gulf between image acquisition and reporting capacity is widening year on year with the 10% increase in CT output falling to a shortage of radiologists⁵ and a similar critically bleak picture for histopathologists.
- Providers such as large healthcare institutions and national health trusts such as NHS in the UK are required to deliver efficiency savings of 4-5% per annum. This puts providers under increasing pressure to improve the productivity of their services.

The longer clinicians are involved in the preparation and provision of MDTs, the less time they have available to report the cancer cases in the first place.

Efficiency challenges

Other challenges are related to time, case selection and quality of available data.



Current MDT workflow – manual, inefficient and error-prone

As a consequence, large numbers of inappropriate cases are added to meetings or discussed multiple times, thus reducing the overall time available for formative consideration per cancer patient. This reduces available time for other core duties and results in an overall reduction in efficiency in the entire care pathway, not just the MDT process.

Goals

Smart methodologies need to be employed to leverage the most effective and efficient working practices which:

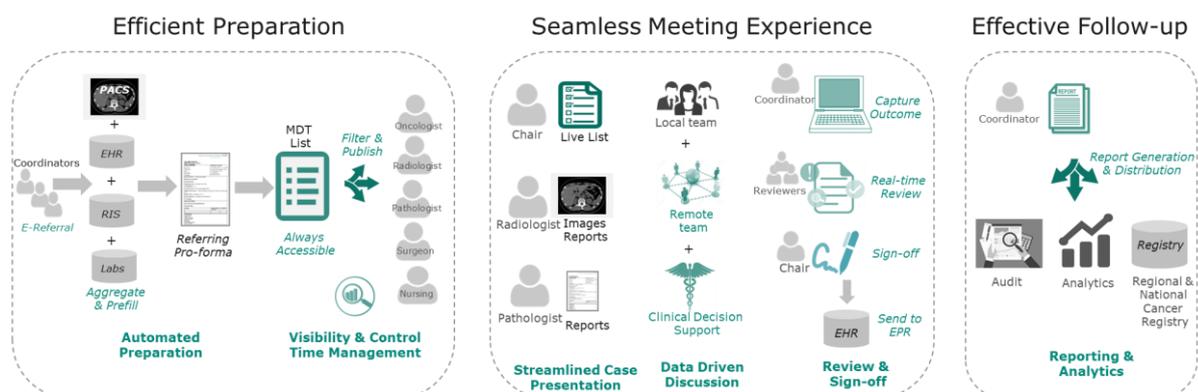
- Reduce time wasted on inefficient practice
- Ensure cases that come to MDT are fully worked-up and appropriate
- Ensure cases that come to MDT have clear clinical details about what needs clarifying
- Facilitate the appropriate collaborative review of relevant information and assure that imaging is available irrespective of the location of the MDT member
- Ensure the advice from the meetings is consistent and unambiguous – particularly important if the clinicians managing the patient are not present at the MDTs
- Capture the treatment outcome efficiently and make it available in the EHR

Meetings will have the specialists attend for only as long as they need to provide their input, thus leveraging more time back to surgery, clinics, treatment, radiology and pathology reporting.

Enter Barco Synergi

Barco Synergi is a dedicated streamlined MDT solution which is vendor-neutral, viewer-agnostic, and can integrate with any EHR/RIS system to provide end-to-end benefits from case addition through outcome management. This provides visual management of the entire pathway and consolidates information to support pathway tracking lists.

- An always accessible MDT Patient List means immediate knowledge of cases alongside visual prompts to ensure all relevant details required to inform a data-driven discussion at MDT is available prior to the meeting, with more time for case review and reduced number of inappropriate cases.
- The solution allows filtering of the running order of cases by certain criteria such as case complexity, disease areas etc. to accommodate availability of participants. This ensures that the right people are available at the right time for the meeting and reduces non-value-added time spent at meetings. This aids efficiency of the meeting and improved consultation.
- Editing the proforma during the meeting ensures a single agreed point of truth and means the discussion can be validated and concluded before moving on to the next case. It also allows the outcomes to be immediately available to the referrers to reduce pathway times for onward management.



Barco Synergi for MDT – New automated, efficient workflow with Clinical Decision Support

These features would fulfil all the recommendations set out earlier by the Cancer UK to improve MDT efficiency.

How Barco Synergi can help improve cancer care

Making the MDT process more efficient also has the added value of improving the consultation discussion.

- Patients are added to MDTs as soon as possible with relevant data.
- Only Relevant cases are added
- The clinical question to be addressed and the discussion outcome are clear to all stakeholders.
- Less time wasted due to aggregating lists
- Waiting on multiple email chains or feedback/clarification
- Waiting on paper referrals
- Specialists can be more efficient and increase their value added input to MDTs:
- Prepping cases at times convenient to them instead of waiting for finalized lists
- Flexing in and out of meeting at relevant times rather than sitting through entire meetings when not required throughout
- Increased clinician availability to their other responsibilities by reducing time lost to MDT inefficiency.

Measureable Benefits

Feedback from some healthcare providers suggests that up to 7% of all cases that are listed for MDT can be inappropriate, and in some specialities up to 1/3 of the cases are inappropriate. These are generally not cancer cases or not fully worked up to decide an outcome. Providing platform-agnostic sharing of MDT referrals to all MDT members allows:

- Visual management to ensure all the requisite details required for discussion are available
- "Readiness for discussion" scoring to filter or defer cases
- It is easier to identify "case complexity" prior to the meeting, outlining which may need more time to discuss and the meeting can be managed to facilitate this

This reduces the burden on radiologists, pathologists and coordinators in preparing cases that do not require Oncology MDT review. This allows more time to discuss the relevant cases in-depth and consequently leverages more time for reporting to increase efficiency in departments.

Increased confidence of appropriate case discussion and management liberates time in the MDT pathway:

- Meetings with patients can be prospectively booked shortly after the MDT to discuss treatment options – this can reduce pathway times by up to 5 days and provides better peace of mind for the patient
- Mapping case readiness ensures that cases are discussed at the first appropriate MDT without needing to bring back again for missing information – this can save up to a week from the pathway and ensure "Decision to Treat" is achieved more quickly, pump-priming the pathway to reduce risk of 62-day breaches.

Thus we reduce pathway times, improve MDT satisfaction, give back time to specialists for other work, and share treatment plans with patients more quickly.

References

1. "Advisory Board"; Critical Disruptors Report, 2015
2. "Delivering Cancer Waiting Times" NHS England, 2015.
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About the authors

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He completed medical training at the University of Cambridge; United Medical and Dental Schools of Guy's & St Thomas' in London; and Manchester's Radiology Training Scheme, before taking up his post at Bolton in 2006.

Anish Patankar is Vice President at Barco Healthcare, where he is responsible for driving new growth initiatives for Barco in Healthcare Informatics. An industry veteran, Anish has a passion for taking technology ideas to the healthcare market. His experience includes leading digital initiatives for Healthcare innovation, Oncology Informatics, Radiology software, and creating social networking platforms for test preparation. Previous employers include GE Healthcare, Varian Medical Systems, Philips Healthcare and Siemens Healthcare.

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