Streamlining cancer multidisciplinary team meetings: challenges and solutions

National guidance for cancer multidisciplinary teams recommends streamlining cases according to clinical complexity and guidelines. This article explores how the existing knowledge base and resources, accumulated since the introduction of multidisciplinary teams, can help to improve their effectiveness.

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Advent of multidisciplinary teams in cancer care

Multidisciplinary teams are the gold standard of cancer care delivery. Over the past 20–30 years, the NHS has pioneered the multidisciplinary team model, following evidence of variation in cancer care delivery in the UK documented in the Calman–Hine report (The Expert Advisory Group on Cancer to the Chief Medical Officers of England and Wales, 1995). Since the Improving Outcomes Guidance, multidisciplinary team discussion of all new cancer cases has been mandatory in the UK (National Institute for Health and Care Excellence, 2002). Some of the generally accepted benefits of multidisciplinary team working are: improved adherence to best clinical practice with reduced geographical variability, timeliness of diagnostics and treatment, and improved patient outcomes including survival (Lamb et al, 2011; Kesson et al, 2012). Other indirect benefits are improved healthcare professional wellbeing, education and quality assurance (Taylor and Ramirez, 2009). Central to this way of working is the multidisciplinary team meeting, at which cases are presented, information is shared and reviewed, and care management is discussed and documented. Following success of the multidisciplinary team model in cancer care, it has now been extended to many other areas of healthcare that involve complex care.

Increasing workload

However, over time, multidisciplinary teams have become burdened by increasing workloads with an unmatched, limited increase in resources to support such work. The result is that support services, such as radiology and pathology, cannot meet their multidisciplinary team commitments while supporting other essential non-multidisciplinary team-related work. The reasons for this growing workload are numerous, including increased cancer incidence, cancer survival, comorbidities, population size and longevity (Soukup et al, 2018). In addition, perhaps as a result of the success of the multidisciplinary team model, many straightforward or non-cancerous cases are put through the multidisciplinary team process. It appears that healthcare professionals appreciate the benefits of the multidisciplinary team and feel confident in the safety net it provides for a range of cases, although there are growing concerns that clinicians now fear making clinical decisions without the approval of the multidisciplinary team (Gore, 2017).

Mandate for change

Since the early 2000s, a number of research groups and clinicians in the UK have been seeking to understand what drives multidisciplinary team effectiveness (Soukup et al, 2018). This work was taken to the mainstream in 2017 with the report by a team at Cancer Research UK (2017) into the challenges facing cancer multidisciplinary teams across the UK. It highlighted discrepancies between the demands placed on and the resources available to multidisciplinary teams, while making a number of recommendations for improvement (Hoinville et al, 2019). Subsequently, the Department of Health and Social Care commissioned a national pilot led by Martin Gore (2017) aimed at transforming the working of cancer multidisciplinary teams to increase efficiency, in light of the

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growing service demands. It involved many multidisciplinary teams from different tumour types across the country.

Multidisciplinary team streamlining

The underlying principle of the mandate for change was to streamline multidisciplinary team working. Effectively, only complex patients, requiring true multidisciplinary input, would be discussed at multidisciplinary team meetings, while patients on predetermined or agreed algorithms or guidelines would be registered, but not discussed. This would reduce the time that all multidisciplinary team members, especially radiologists and pathologists, spend in multidisciplinary team meetings. The preliminary empirical support for this premise was the results from the national pilot (Gore, 2017). For example, Hadjipavlou (2019) reported a reduced number of cases discussed at multidisciplinary team meetings, and consequent reduction in meeting time. Subsequent release of the NHS England and NHS Improvement (2020) guidance marked a formal national initiative for streamlining cancer multidisciplinary team meetings in the UK.

Risks of streamlining without evidence

With the guidance on streamlining published (NHS England and NHS Improvement, 2020), the mandate for discussing all cancer cases no longer exists. The 'one size fits all' approach is likely to change overnight with multidisciplinary teams adapting to their local circumstances as an immediate response to existing workloads (Hoinville et al, 2019). Therefore, there is an urgent need for evidence-based approaches that can be used by multidisciplinary teams to streamline services, while maintaining the safety and quality of patient care.

This is critical: failure to streamline multidisciplinary team processes using existing best evidence means that while the team's caseload may become more manageable, the care quality could be compromised by returning to the unwarranted variation in patient care that was evident before the introduction of multidisciplinary teams in the UK (The Expert Advisory Group on Cancer to the Chief Medical Officers of England and Wales, 1995), ie patients who present with disease at similar stages and of similar complexities may be faced with care variation, driven by idiosyncratic care management – the precise problem that multidisciplinary team working was introduced to address in the first place.

This need not happen, however. There is a substantial evidence base within allied sciences based on behavioural and team process data that can be applied to multidisciplinary team streamlining, rather than merely a simplistic caseload reduction.

Multidisciplinary team effectiveness

It is clear from the literature that inefficiencies in existing multidisciplinary team processes are commonplace (Taylor and Ramirez, 2009). For example, failure of clinicians to submit adequate information at the point of referral means cases are rejected by the multidisciplinary team and need to be re-presented. Failure to present adequate information means recommendations cannot be decided upon; cases with multidisciplinary team recommendations that are clinically inappropriate, or unacceptable to patients cannot be implemented. At each of these junctions, delays in patient care can occur with repeated listing for the multidisciplinary team meeting, consuming additional resources. Such inefficiencies arise from a lack of understanding of what is required for effective clinical decision making these meetings. Factors such as professional hierarchies, lack of open discussion, failure to consider holistic information or patient views and lack of personal knowledge of the patient being discussed all have an adverse impact on effective clinical decision making (Soukup et al, 2018).

Tools for improving multidisciplinary team working

To deliver safe and high-quality care for cancer patients, streamlining of multidisciplinary teams must consider both case selection and the effectiveness of processes within the

meeting itself. Improvement research, focused on cancer multidisciplinary teams, over the past 10 years in the UK has provided a 'tool kit' with which team members can assure the quality of their multidisciplinary teams. Over this period, the authors' group has been scientifically studying the workings of cancer multidisciplinary teams and accumulating an evidence base on the factors that promote or hinder teams to review patients holistically within a meeting and make recommendations that are both clinically sound and acceptable to patients (Soukup et al, 2018).

The authors have also developed evidence-based tools for the assessment and improvement of the performance of multidisciplinary teams (Table 1). These tools can be used by

Table 1. A selection of tools for multidisciplinary team improvement and their application

Tool	Application
MDT-MeDiC	■ Evidence-based and expert-driven tool/algorithm to gauge complexity of cancer multidisciplinary team cases and help with streamlining ■ Developed to help multidisciplinary teams streamline their processes ■ Coincides with national initiatives improve the efficiency of the multidisciplinary team meeting ■ Used for case selection and prioritisation ■ Can be used by clinicians, administrators or researchers ■ Provides a solution for streamlining meetings without compromising quality ■ Can be used with other tools (eg MDT-FIT, MDT-MODe, MDT-QuIC, MDT-ATLAS) as part of a comprehensive multidisciplinary team streamlining strategy
MDT-QuIC	■ Supports comprehensive, patient-centred decision making in multidisciplinary team meetings ■ Validated with experts and end users ■ Demonstrated improved multidisciplinary team discussion quality and efficiency as part of a quality improvement bundle ■ Use as a checklist for decision making, as an aide memoire for the multidisciplinary team chairperson, to structure referral documentation, or for the recording of multidisciplinary team outcomes ■ Can be used with other tools as part of a comprehensive multidisciplinary team streamlining strategy
MDT-MODe	■ Evidence-based tool for the observational assessment of teamwork and clinical decision making in cancer multidisciplinary team meetings ■ Validated for six major tumour types ■ Can be used by clinical and non-clinical personnel ■ Provides a flexible metric for assessing a number of different key performance indicators ■ Some training is required to become proficient in the use of MDT-MODe
MODE-LITE	■ Validated observational assessment tool, based on MDT-MODe ■ Streamlined for routine clinical use ■ Psychometric properties condensed to six domains ■ 3-point Likert scale
MDT-ATLAS	■ Tool to measures leadership and chairing skills ■ Developed and validated with experts and end users ■ Supports the assessment and development of multidisciplinary team leadership ■ Can be used with other tools as part of a comprehensive multidisciplinary team streamlining strategy
MDT-FIT	■ A web-based self-assessment and quality improvement platform ■ For use by individual multidisciplinary teams, trusts and networks or systems ■ Three-stage process: 1. Self-assessment 2. Independent observation 3. Anonymised feedback and facilitated team ■ Facilitates teamworking and quality improvement at low cost and takes little time ■ Is repeatable allowing issues to be prioritised and supports 'benchmarking' across teams and services ■ Shown to improve the quality of service and benefit patient care

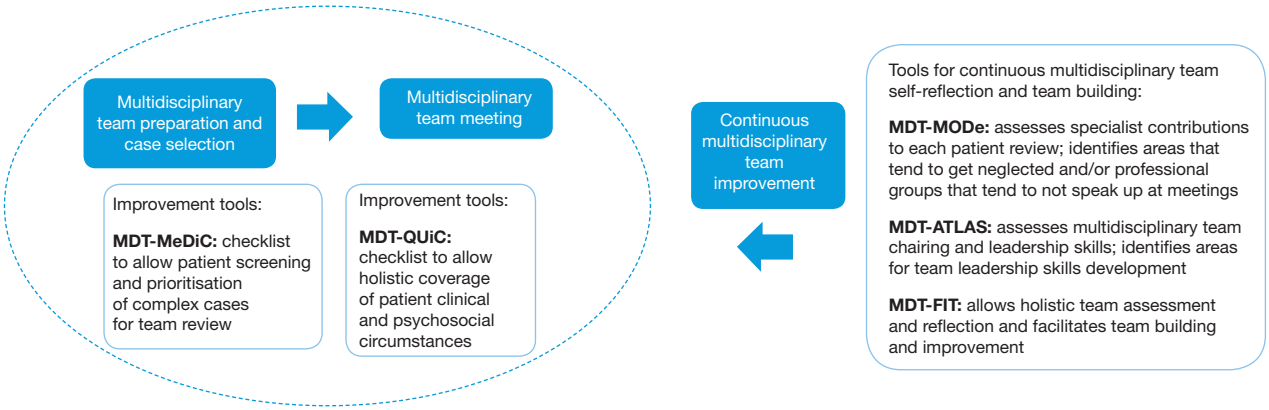

Figure 1. Schematic representation of the phases of multidisciplinary team working with application of quality improvement tools.

clinicians, administrators or researchers to gain an objective understanding of how their teams are performing. They can be used as part of an audit or quality improvement initiative to improve the delivery of care for patients, and as an aid to streamlining meetings. One of particular relevance at present is an evidence-based stakeholder-driven algorithm to help streamline multidisciplinary team meetings (Soukup et al, 2019) in line with the NHS England and NHS Improvement (2020) initiative.

These tools can be applied at different points along the multidisciplinary team pathway: for pre-meeting case selection, for intra-multidisciplinary team meeting streamlining, and for team reflection, assessment and team building (Figure 1).

East of England Cancer Alliance

One possible model for the implementation of multidisciplinary team improvement is that which is being tried in the East of England Cancer Alliance (Melesi, 2019). The Alliance, fully supporting the NHS England and NHS Improvement multidisciplinary team effectiveness work, has convened a steering group made up of local clinicians who are interested in driving change in their own institutions, patient representatives and multidisciplinary team-focused researcher scientists. The Alliance is providing financial support for a range of training and quality improvement initiatives, using resources presented in Table 1 and Figure 1, tailored to individual trusts and tumour types, as recommended by the steering group. Such interventions include training in quality improvement and multidisciplinary team assessment methods, and production of a manual for multidisciplinary team effectiveness.

It is hoped that the net result will be a central repository of accessible and practical resources resting with the Alliance and used centrally (eg for training) or deployed locally (eg for effecting, measuring and reporting local change), according to the needs of each multidisciplinary team. This will help build an infrastructure that enables learning and improvement by allowing multidisciplinary teams and stakeholders to capitalise on existing resources, reducing overlapping efforts. For some, a simple self-assessment of multidisciplinary team effectiveness may be sufficient to facilitate improvement, whereas for others a more intensive period of assessment, training and development may be needed.

Conclusions

The current system of multidisciplinary team working in the NHS in the UK is rightly seen as ‘world class’, but this is not sustainable at the present rate. Change is needed in order to deliver improvements in effectiveness and protect the scarce services that underpin our multidisciplinary teams. At such a juncture, it is critical that multidisciplinary teams are supported to implement safe, high quality and effective changes to the way they work. The guidance on multidisciplinary team streamlining provides a mandate for this change. Validated tools exist to support this aim and the authors hope that the considerable evidence

Key points

- The current system of multidisciplinary team working in the NHS in the UK is considered the gold standard of cancer care.
- Increasing workload, with an unmatched and limited increase in resources, has made the system unsustainable.
- NHS England and NHS Improvement have issued guidance for multidisciplinary teams to streamline their processes to reduce their workload.
- Evidence-based tools exist to help teams to optimize the quality of multidisciplinary team working.
- These tools can be used as part of a comprehensive programme to ensure that streamlining improves the delivery of excellent cancer care in a safe manner.

base for multidisciplinary team effectiveness will supplement this to provide the means of improving the delivery of excellent cancer care in a safe manner. The East of England Cancer Alliance provides an example of a locally driven initiative to design infrastructure of learning and improvement by using the existing knowledge base and resources in line with the guidance.

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Conflicts of interest

BL and TS received funding for training multidisciplinary teams in assessment and quality improvement methods. NS is the Director of London Safety and Training Solutions Ltd, which provides teamworking, patient safety and improvement skills training and advice on a consultancy basis to hospitals and training programmes in the UK and internationally. JG is a Director of Green Cross Medical Ltd that developed MDT FIT for use by NHS Cancer Teams in the UK.

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