The Royal College of Pathologists
Pathology: the science behind the cure

Best practice recommendations

The role of the cellular pathologist in the cancer multidisciplinary team

February 2022

Authors: Professor Keith Hunter (Lead Author)
Dr Lynne Jamieson
Dr Newton Wong
Dr Murali Varma
Dr Adrian Bateman

Unique document number	G087
Document name	The role of the pathologist in the multidisciplinary team
Version number	2
Produced by	Professor Keith Hunter (Sheffield Teaching Hospitals NHS Foundation Trust and The University of Sheffield), Dr Lynne A Jamieson (Salford Care Organisation Northern Care Alliance NHS Foundation Trust), Dr Newton Wong (North Bristol NHS Trust), Dr Murali Varma (Cardiff and Vale University Health Board) and Dr Adrian Bateman (University Hospital Southampton NHS Foundation Trust), on behalf of the Specialty Advisory Committee on Cellular Pathology.
Date active	September 2022
Date for review	September 2025
Comments	This document replaces the March 2017 document entitled *The role of the lead pathologist and attending pathologists in the multidisciplinary team*. It has been revised to incorporate the most recent guidance from NHS England. In accordance with the College's pre-publications policy, this document was placed on the College website for consultation from Monday 21 February to Monday 21 March. Responses and authors' comments are available to review. Please email publishing@rcpath.org to see the responses and comments. **Dr Shubha Allard** **Clinical Director of Publishing and Engagement**

The Royal College of Pathologists
6 Alie Street
London E1 8QT
T: 020 7451 6700
F: 020 7451 6701
www.rcpath.org

Registered charity in England and Wales, no. 261035

Contents

Foreword

Best practice recommendations (BPRs) published by the Royal College of Pathologists assist pathologists in providing a high standard of care for patients. BPRs are systematically developed statements to assist the decisions and approaches of practitioners and patients about appropriate actions for specific clinical circumstances. They are based on the best available evidence at the time the document was prepared. It may be necessary or even desirable to depart from the advice in the interests of specific patients and special circumstances. The clinical risk of departing from the BPR should be assessed and documented.

A formal revision cycle for all BPRs takes place every three years. The College asks the authors of the BPR to consider whether or not the recommendations need to be revised. A full consultation process is undertaken if major revisions are required. If minor revisions or changes are required, a short note of the proposed changes is placed on the College website for two weeks for members' attention. If members do not object to the changes, a short notice of change is incorporated into the document and the full revised version replaces the previous version on the College website.

This BPR has been reviewed by the Publishing team. It was placed on the College website for consultation with the membership from Monday 21 February to Monday 21 March. All comments received from the membership were addressed by the authors to the satisfaction of the Clinical Director of Publishing and Engagement.

This BPR was developed without external funding to the writing group. The College requires the authors of BPRs to provide a list of potential conflicts of interest. These are monitored by the College's Publishing team and are available on request. The authors of this document have declared that there are no conflicts of interest.

1. Introduction

1.1 Definitions*

Multidisciplinary team (MDT) meeting (MDTM): a formally constituted, peer reviewed and clinically focused meeting of health professionals from different specialties involved in management of patients diagnosed with a specific condition or where a patient is on a certain management pathway. This most commonly links to management of patients being considered with a diagnosis of malignancy (cancer MDTM), but equally applies to non-cancer management meetings.

Clinicopathological conference (CPC): a clinically focused meeting of health professionals involved in patient management where discussion of pathological material has an impact on patient management or educational benefit.

Diagnostic case review: a documented process in which the issued laboratory report and corresponding histological slides are subsequently reviewed by the original or a different pathologist. This would not normally generate an additional or supplementary report, except where a different or additional diagnostic opinion arose from the review. It is a matter for local clinical judgment as to what material is physically reviewed depending on the context of a case. Additional investigations may be generated as part of diagnostic case review.

Double reporting: a process in which two (or sometimes more) pathologists jointly report a case, having access to all the slides and relevant macroscopic and clinical information. This would normally occur before a final report was issued, approved by all the pathologists contributing to the case and who concur on required prognostic parameters, including those required for staging of the case if necessary. Additional investigations may be generated as part of double reporting.

Consensus meeting: a process in which a difficult case is discussed between pathologists to reach a consensus over a diagnostic opinion. This would normally occur before a final report was issued, approved by all the pathologists contributing to the case. It is a matter for local clinical judgment as to what material is physically reviewed depending on the context of a case and how this is recorded. Additional investigations may be generated as part of a consensus meeting. It is possible that diagnostic uncertainty remains after this process, and this should be recorded.

Specialist review: the review of histological slides by a person designated as a specialist reporting pathologist other than the index reporting pathologist. This process may result in an additional or supplementary report being generated for the case. Additional investigations may be generated as part of specialist review.

MDT review: the review of the pathology report and, in some cases, the histological slides, as part of the preparation for the MDTM. Additional investigations may be generated as part of an MDT review and may result in an additional or supplementary report especially if the review is part of a specialist MDT review. The definition of this will be expanded later in the text.

* Note: this definition list outlines the use of these terms as used in this document. These are not intended to overarch standard RCPath definitions.

1.2 Background and scope

In 1995, the Calman–Hine report placed MDT working at the centre of the delivery of cancer services.[1] The current revision of this document focuses on the role which cellular pathology services play in cancer MDTs in the current NHS climate, including recent proposals for MDT reform and streamlining.[2] MDTs now provide more sophisticated and personalised treatments to a higher volume of patients, with increasingly complexity. Some of these changes are more applicable and achievable in certain diagnostic areas and cancer pathways than others.

The general principles outlined in this document should also be applied to cellular pathologists who contribute to MDTs in non-cancer pathology areas of practice. Furthermore, while the document applies particularly to histopathologists and cytopathologists, it may also be relevant to haematologists in haematological oncology MDTs.

In 2010, The National Cancer Action Team (NCAT) published a document describing the characteristics of an effective MDT.[3] While some time has passed since this document was produced, there are general principles which still apply. These have been modified, allowing for changes in practices since publication, and are presented below. The original document can be viewed in its entirety via the link in the references.

- Members should have the level of expertise and specialisation required by the MDT in question; where there are no relevant peer review measures or accreditation for these roles, the issue of clinical competence is for the relevant professional body or the NHS Trust to determine. Specialty trainees can present cases at an MDTM under supervision.
- Attendance by all relevant specialties sufficient to support clinical decision making is planned so that the MDTM is always quorate, except in exceptional circumstances. The definition of ‘quorate’ should be agreed locally.
- MDT members should have specified, dedicated time in their job plans to prepare for, travel to (if necessary) and attend MDTMs. The amount of time should be negotiated locally to reflect workload and will vary according to discipline and cancer type.
- Each MDT member should have clearly defined roles and responsibilities within the team, which they have agreed to and which are included in their job plans.
- The team should agree what is acceptable team behaviour/etiquette and whether the meeting is conducted in person or via videoconferencing, including:
  - mutual respect and trust between team members
  - an equal voice for all members, including moderation of voice and text comments in videoconferences
  - valuing of different opinions
  - resolution of conflict between team members
  - encouragement of constructive discussion/debate
  - absence of personal agendas
  - ability to request and provide clarification if anything is unclear.
- There should be access to training opportunities as required to support an individual’s role in the MDT. This includes, but is not limited to, the use of IT equipment, e.g. videoconferencing, remote access to the MDTM and the use of digital pathology to present images. See section 4.2 for the facilities required for a pathologist to function

properly at the MDTM.

1.2.1 Proposals for streamlining of MDT working

Recent reviews have highlighted the role that MDTs have played in revolutionising decision-making in care for cancer patients,[4,5] but the evidence base in the peer reviewed literature is rather weak.[6] Nevertheless, the recent issues raised in the Paterson Report do highlight the wider importance of awareness of work (including pathology input) across the whole MDT as an important element of patient safety.[7] However, several issues and limitations in the current MDT system have been highlighted in the literature, including the reduction in the quality of clinical decision-making in large MDTs (>20 patients discussed)[8] and the fact that some members of the MDT (including pathologists, radiologists and medical oncologists) may service multiple MDTs.[9] For pathologists, this increasing workload, including increasing complexity and the demands of molecular pathology, have not been matched by increased resources, which has rendered the current system of MDT working unsustainable.[10,11] These issues have resulted in a review of MDT working with a view to streamlining the process.[2]

The guidance for the organisation of the MDT has been updated by NHSI and other organisations (including the Streamlining Multi-Disciplinary Team Meetings guidance for Cancer Alliances and the British Association of Dermatologists for skin cancer MDTs).[2] This update would enable cancer MDTs to respond to the changing landscape in cancer care, as recognised in the NHS Long Term Plan[12] and the Independent Cancer Taskforce Report.[4] Recommendations from the NHSI document have been incorporated below. MDT streamlining will be supported by agreeing Standards of Care (SoC) across Cancer Alliances. An SoC is a point in the pathway of patient management where there is a recognised international, national, regional or local guideline on the intervention(s) that should be made available to a patient. The detail that follows primarily pertains to NHS England but will be relevant to the overall NHS structures in the devolved nations.

Where local SoCs are developed, the following steps must be completed for the SoC to be signed off by the Cancer Alliance:

- identification of the point in a predetermined SoC where referral to the MDT is required and incorporate NHS England's rapid cancer diagnostic and assessment pathways, as well as local diagnostic protocols where applicable, to support the Faster Diagnosis Standard[7]
- clear clinicopathological parameters for the application of the SoC, e.g. by histological subtype, stage and grade of disease, which indicate that a patient does not require full discussion at an MDTM. Consideration should be given to situations where an SoC would or would not apply, with clear inclusion and exclusion criteria.
- SoCs should include processes for managing interactions of networked MDTs and explicitly state to which MDTMs they apply; in some situations, they may apply to both local and specialist MDTMs. This is not a one-size-fits all approach.
- the SoC identified must be based on national or international standards, guidelines and protocols, and best practice as determined by the Cancer Alliance tumour pathway board. The clinical guidelines used in generating the predetermined standards of care must be referenced.

When looking to introduce SoCs, findings from real-world testing of this guidance indicated that Cancer Alliances may wish to start with MDTs with the following characteristics:

- existing consensus on well-established, pre-defined treatment pathways for tumour sites

- local MDTs that, in contrast to specialist MDTs, may have a greater case mix, including fewer clinically complex cases requiring discussion
- sub-specialist pathology and radiology expertise already available to support triage of patients 'not for discussion' at the MDTM.

The MDT chair should work closely with the MDT co-ordinator and members to agree an optimal process for gathering and reviewing information in advance of the MDTM. The MDT will maintain oversight of all patient cases, but where a patient's treatment need is met by an agreed SoC protocol, the case would be listed but not discussed at the full MDTM. The preferred means of designating patient cases as 'not for discussion' in advance of the MDTM should be agreed with the Medical Director of the Trust and the method may vary between tumour sites. The SoC should be reviewed prior to the MDTM by a named appropriate person or via the creation of a triage group for deciding which patients do not require full discussion at the MDTM. The purpose of a triage group is to review and to decide if patient need is met by the SoC or if full MDT discussion is required. If such groups are formed, their constitution, functionality and utility should be regularly reviewed and justified. The referring clinician maintains responsibility for their patient(s) and the patient list should be made available for the MDT to review in good time before the meeting.

1.3 General principles of MDT working

Oversight of cancer MDTs is the responsibility of the Cancer Alliances and their Clinical Delivery Groups (or cognate relevant bodies in the devolved administrations).[13] Cancer Alliances bring together clinical and managerial leaders from different hospital trusts and other health and social care organisations, to transform the diagnosis, treatment and care for cancer patients in their local area. These partnerships enable care to be more effectively planned across local cancer pathways. Each Cancer Alliance brings together the key organisations in their area to coordinate cancer care and to improve outcomes for patients locally.

- There should be a locally agreed cut-off time for inclusion of a case on the MDT agenda and team members should abide by these deadlines. However, there should be some flexibility for cases that may need to be added beyond this cut-off due to clinical urgency.
- A locally agreed minimum dataset of information about patients to be discussed should be collated and summarised prior to MDTMs. This should include diagnostic information (pathology and radiology), clinical information (including co-morbidities), and patient history, views and preferences (where known). It is important that any data items collected locally that are in the relevant existing national datasets or are within the NHS Data Dictionary are in line with these data definitions and codes when collected, including COSD data.
- Cases should be organised on the agenda in a way that is logical for the anatomical area being considered. This should help to ensure there is adequate time for discussion of cases where it is needed, by allowing more focus on complex cases.
- The structure of the agenda should allow, for example, the pathologist to leave if all cases requiring their input have been discussed.
- If the principles of MDTM streamlining are applied, all patients will remain listed and recorded at the MDTM, however patients will be stratified into two groups:
  - those cases where full discussion at the MDTM is required, for example due to clinical complexity or psycho-social issues

  - those cases where a patient's needs can be met by a standard treatment protocol (or SoC), and so do not require discussion at the MDTM.

- Members should know what information from the locally agreed minimum dataset of information they will be expected to present for each patient, so that they can prepare and be ready to share this information (or have delegated this to another member if they cannot attend) prior to and/or at the meeting.
- A locally agreed minimum dataset of information is presented for each patient, including diagnostic information (pathology and radiology) and clinical information (including co-morbidities, psychosocial and specialist palliative care needs), to make appropriate recommendations on the patient in question. It may not, for example, be necessary to show/discuss the pathological or radiological findings in all cases.
- There is access to all relevant information at the meeting, including patient notes, test results/images/samples (past and present) and appointment dates (or a proforma/summary record with the necessary information), along with access to patient administration systems (PAS), and radiology and pathology IT systems, etc. Relevant past material should be reviewed prior to the meeting if it is not accessible during the meeting.
- MDT recommendations are only as good as the information upon which they are based. If there are concerns that key data is missing, this should be documented. Where a recommendation cannot be made because of incomplete data or where new data becomes available at a later stage, it should be possible to bring the patient case back to the MDTM for further discussion.
- There should be a robust, locally agreed mechanism for adding patients back to the MDT list for discussion, where clinically relevant molecular data (for example, sequencing data) is added some time after the initial histological diagnosis.
- In relation to governance of the MDT, significant discrepancies in pathology, radiology or clinical findings between local and specialist MDTs should be recorded and subjected to audit.

2 Essential features of the role of the pathologist

2.1 Appointment, experience and competencies

The MDT cellular pathologist may be a monospecialist, subspecialist or a general histopathologist with a declared special interest and who has the expertise to help clinicians interpret pathology reports in a particular specialty. Many MDTs no longer have lead or deputy lead core pathology members but are more likely a team of pathologists who support that diagnostic area on a rotational basis and who have the expertise to participate in the MDT to either local or specialist level. This usually facilitates 100% pathology attendance at the MDT and accommodates departmental staffing pressures.

Some cancer groups have published guidance for participating at local or specialist level.[14] In some circumstances, a pathologist should be nominated to liaise with the MDT clinical lead and work on the agreed datasets and triaging protocols for streaming purposes and for departmental clinical governance and audit purposes. The following principles apply:

- the pathologist/pathologists who are members of a specific MDT for a cancer pathway (or CPC for a tissue pathway) should be regularly reporting in that area of pathology
- pathologists who support a particular MDT should participate in the relevant general and/or specialist EQA scheme(s) to support their reporting practice.

2.2 Review of cases

2.2.1 General principles

A major part of the work of cellular pathologists within MDTs is diagnostic case review. It is important to emphasise that this is not a process for checking the work of other pathologists, nor is it primarily for educational or audit purposes. The primary purpose of MDT case review is to ensure accuracy and completeness of histopathology reporting within the remit of the MDT to ensure good patient care. This should be complementary to the original work of making the primary diagnosis. Each department should have a written standard operating procedure (SOP), outlining the processes for review of pathology at each MDT, including the level of review to be undertaken. This should be included in the overall SOP for the MDT. Ultimately, responsibility for the case lies with the reporting pathologist, unless a clinically significant change in the diagnosis has been made at the MDT, which has resulted in a new report.

The overarching principle in this guidance is the adoption of a proportionate, risk-based approach (in keeping with the principles of ISO15189). Case review practice will need to be adapted to local circumstances, taking into consideration the risk of misdiagnosis in a specific context and the available workforce. In keeping with the principles of Getting It Right First Time,[15] where appropriate, the process of diagnosis may include consultation with colleagues and other opinions, to maximise the accuracy of the index report. If this process is followed, review of all cases is not mandatory. For some MDTs, this review process would be essentially self-review. In other situations, some cases will have been double reported prior to the meeting, but there are only limited areas of work that mandate formal double reporting. Some Improving Outcomes Guidance (IOGs), for example those on skin cancer and sarcoma, have specific guidelines about double reporting of certain diagnoses and case review by a specialist pathologist.[14] The review should be a documented procedure that is attached to the case (preferably using laboratory information management systems or documented in the report) applied systematically in all cases in the MDT.

All written histological reports and, in certain circumstances (dependant on experience and expertise of the reporting pathologist and the standard of care applied to the diagnosis), the original slides used in diagnosis should be reviewed prior to discussion at MDT in a pre-MDT review process (after triaging if this process has been implemented). Please note that with the advent of streamlining processes, a pathologist may be involved in triaging/selection of cases for MDT discussion. This review process should apply to material produced both internally and externally to the organisation hosting the meeting.

The purposes of pre-MDT review include:

- checking wording in the written reports to ensure that there are no internal inconsistencies and that a conclusion is clearly specified
- checking completeness of the written report to ensure that recommended datasets, where specified, have been completed
- where slides are reviewed, confirming the primary diagnosis or identifying areas where further refinement is necessary before patient treatment
- a training and education function for participating pathologists, which can contribute to reflective practice and, where documented, be used as evidence in the appraisal process
- as a quality assurance role within the department. This is an important function and, while not the main role of MDT, can be used to efficiently audit quality for UKAS purposes.

2.2.2 Selection of cases for review

The identification of which cases should be subject to review of the histological slides prior to the MDT should be agreed as part of specifying a systematic approach to diagnostic review after triaging of cases according to agreed streamlining processes. For some MDTs, triaging will have no effect as all cases will be reviewed and discussed, while for others where there are cancers of low risk with agreed SoCs, the number of cases listed for discussion may be less. Beyond this, not all those cases may necessarily need review, especially if there are robust, local double reporting protocols in place. However, the following general principles should apply, and the level of review undertaken should be recorded:

- review of the histopathology report should be the minimum for all cases and can be undertaken without slide review when reviewing cases within a subspecialty reporting team within a department. However, limited review of slides may be undertaken if selecting a slide for projection. Self-review of cases a pathologist has reported themselves serves a purpose ensuring familiarity with the case and in contributing to detecting errors or inconsistencies.
- review of cases reported by other specialist/MDT pathologists within the same Cancer Alliance. This should largely be limited to report review, but slide review may be necessary, particularly in certain circumstances, which are outlined below. The need for a formal report should be subject to local agreement, but a defined mechanism for recording such reviews is required.
- review of cases from other centres within the MDT/Cancer Alliance where there is no designated MDT pathologist for a particular specialty. This should be a report and slide review and a formal report of the review should be issued.
- requested reviews (from anywhere in the MDT, including pathologists, regardless of within subspecialty or not, and which should come with an appropriate justification for

such review) should include report and slides, and a report should be issued.

- if the cases include material outside the usual reporting remit of the MDT pathologist (for example cytology specimens), the MDT may record that the slides were not reviewed. A further specialist review can be sought if required.
- variation from this generic advice is required in some circumstances. In particular, the NHS Cervical Screening Programme requires all histopathology to be reviewed by a second individual. See Screening Programme MDT review.
- if slide review is performed, the MDT pathologist should focus on assessing whether the reported interpretation is reasonable and should avoid changing reports in borderline cases unless completely necessary.

In addition to the above principles, it is advised that formal slide review should occur:

- where there has been a significant discrepancy between histological findings and clinical or imaging features
- in areas where published audits have indicated an area of acknowledged diagnostic difficulty leading to frequent revision of diagnosis. A lower threshold should be considered where primary reporting has been done by an MDT pathologist who does not meet the criteria and characteristics specified for definition of a specialist pathologist in the area being reported.
- for uncommon conditions seen within the spectrum of practice of the MDT, as a means of maintaining skills among the group of pathologists supporting the diagnostic area
- for cases which have been outsourced to commercial companies. This may pose a significant additional burden for MDT preparation. These cases should be reviewed, which should involve all the slides for the case (if available) and, in some cases, a formal report may be issued. This specification should be proportionate to risk, agreed with the clinical lead for the MDT and documented in the appropriate SOP.

2.2.3 Resolving areas of difficulty

A procedure should be in place and agreed with the clinical lead for the MDT as well as the clinical lead for the pathology service for scenarios where clinically significant diagnostic disagreement between colleagues cannot be resolved following review of slides.

- If the primary pathologist and the review pathologist cannot agree on a single diagnostic opinion, the SOP should specify how this should promptly be made known to the clinical lead for the MDT pending resolution. The procedure should specify that the opinion of an independent specialist pathologist working in a laboratory to whom material is regularly referred (as agreed in local UKAS referral documentation) would normally be used and that the opinion of this specialist given weight in any further consideration. The opinion of all reporting pathologists should be made known to the MDT responsible for making management decisions, together with a consensus view where this can be achieved.
- If a colleague will not permit review of slides by the MDT lead or designated deputy, the MDT should ensure that this is regarded as a conduct and performance issue and discussed with a relevant medical director. It is recognised that diagnostic isolation and failure to share case material for review is a characteristic of medical practitioners who perform poorly.[7]

2.3 The role of the cellular pathologist at the MDTM

The primary role of pathologist in the MDTM is to help interpret the report and provide advice to inform the clinical discussion, rather than to verify or illustrate histological findings.

The pathologist at the MDTM should also ensure that:

- statements about pathology are correctly recorded in the formal outcomes of the MDTM. This is important to avoid misinterpretation, with a consequence for patient management.
- there is appropriate feedback to other pathologists on clinicopathological correlations and discrepancies
- formal supplementary reports and, if necessary, incident/Datix reports are issued if relevant to patient management
- according to their interests and experience, the pathologist may also be able to advise on the recording of key clinical and pathological data derived from the MDT process.

The monitoring of quality and outcome data varies between cancer subspecialties, with national databases and audits ongoing for some areas of MDT practice. The provision of pathology data for local audit or national reporting should be overseen by the MDT pathologists, although IT systems may allow this work to be carried out without the MDT pathologist's active participation.

3 Extended features of the role

3.1 Defining and maintaining clinical quality standards

An ISO15189-accredited laboratory will have SOPs covering the dissection and reporting of cancer and other specimens. These will generally be based on the Royal College of Pathologists' cancer datasets and tissue pathways, and guidelines from other relevant professional bodies. The responsibility for updating these SOPs will vary from department to department but is best met by individuals who are familiar with the literature and national or international developments in any given area of practice. For the work of a cancer MDT, the pathologist(s) serving a particular MDT should be the individual(s) best equipped to keep reporting protocols up to date.

Where pathology reporting standards are agreed across an individual Cancer Alliance, a designated MDT pathologist should oversee implementation of these standards, but the final responsibility is shared by all reporting pathologists. To facilitate this, the designated pathologist should either attend Cancer Alliance Clinical Delivery Group meetings or have direct communication with the pathologist(s) who do(es) attend the meetings.

3.2 Continuing professional development

Although all pathologists are obliged to demonstrate continuing professional development (CPD) in all areas in which they work, in practice it is usual to focus CPD time and effort on areas of special interest. It is appropriate that MDT pathologists should do this in the specialty that their MDT serves.

3.3 Developing the service

Cancer service developments usually affect pathology. Examples include changes in the volume or complexity of the workload or the introduction of new clinical standards or practices, in particular the implementation of NICE IOG. For any such development to occur smoothly, input from the pathology service is required in the planning process. Operational or budgetary changes that may be necessary generally require input from laboratory managers (clinical or scientific); the specialist MDT pathologist is the ideal individual to liaise with the MDT lead and laboratory management to bring about any service changes that may be necessary. In the case of Cancer Alliance-wide developments, the MDT pathologist(s) should also liaise with relevant colleagues in other pathology departments, Cancer Alliance managerial staff, service users and commissioners.

Cellular pathologists play an increasing role in the interpretation and integration of molecular data of increasing complexity, with extension into the remit of Molecular Tumour Boards. This extended role should be supported by training where appropriate.

3.4 Consulting with service users

An essential element of an effective, high-quality diagnostic service is successful interaction with the users of the service, to ensure that the pathology service understands the requirements of its users and the users understand the requirements (and sometimes limitations) of the pathology service. The regular interface between the MDT pathologist(s) and other MDT members greatly facilitates this, although specific problems with service provision

may require the input of laboratory and clinical managerial staff.

3.5 Taking the lead in training

A pathologist with specialist experience in any subspecialty may be the most appropriate individual to lead the training of pathologists, other medical or dental trainees and allied health professionals in that area. Local circumstances will determine the extent to which other colleagues are involved in training.

3.6 Taking the lead in research

Most MDTs will not have their own in-house research portfolio but will enter patients into clinical trials. Some of these trials will require central histopathology review or request tissue for translational research associated with the trial. Active pathology input into these processes should be coordinated by the MDT pathologist(s), facilitated by the research infrastructure in each pathology department.

3.7 Ensuring a reasonable balance of work with colleagues

Some MDTs may be supported by a single specialist MDT pathologist, while in others several pathologists could reasonably share this work, particularly at times of active development such as IOG implementation or if a particular MDT is very active in clinical trials. However, under such circumstances, there would be a need for coordination of these activities and liaison with the MDT lead clinician, to define roles within the group of MDT pathologists.

4 Requirements to facilitate effective pathological input to MDTMs

The MDT pathologist(s) should ensure that the need for adequate support for the MDT process in terms of staffing and facilities (including IT requirements) is brought to the attention of local service managers.

4.1 Staffing and job planning

Pathology input to cancer MDTs should be fully accounted for in consultants' job plans.[16]

- Time for the preparation of cases (including diagnostic case review) should be incorporated as an element of direct patient care in consultants' job plans.
- Time for attendance at the MDTMs should be incorporated as an element of direct patient care in consultants' job plans.
- Attendance at MDT business meetings and meetings of other relevant groups (e.g. local Cancer Alliance) should be included in supporting professional activities.
- In circumstances where a streamlining process requires pathology input to a triage process, this should also be accounted for in job planning, in addition to MDT preparation time.

Where the one or more MDT pathologists have developed a referral practice for difficult cases from other hospitals, the time commitment and laboratory resourcing implications should be recognised.

Trainee pathologists should have attendance and presentation of cases at MDTMs built into their training programmes and appropriate support from consultant pathologists who are members of the relevant MDTs should be available.

Administrative and clerical staffing levels should allow for the (often substantial) time required to retrieve and collate reports and slides in preparation for MDTMs. Where cases have to be obtained from (or sent to) other hospitals, the time and resources required should be recognised and drawn to the attention of laboratory managers.

4.2 Facilities

The facilities required for the effective participation of pathologists in MDTMs will vary according to the requirements of each MDT. The opportunity to project gross and microscopic images at the MDTM is very valuable and, in some cases, may be essential in the discussion of a particular case. If digitised images are used, then appropriate image capture, storage and presentation facilities are required. If images are projected from glass slides, then a good quality microscope and IT network-linked camera need to be provided. The room lighting and quality of projection equipment should support the viewing of these images.

Facilities that should be in place include:

- facilities for projecting and viewing specimen biopsies/resections and accessing retrospective pathology reports. This may include access to digital pathology systems, where these exist.
- facilities to see and speak to MDT members as and when the MDT meets virtually, (e.g.

videoconferencing, whether via trust-owned systems or using video conferencing software, such as MS Teams) and share all information that will be viewed (e.g. images and reports) with them. This includes facilitating the ability of MDT members to join the MDTM from home, as and when that may be required, and includes the provision of webcams and conferencing headsets for this purpose.

- facilities to share images via videoconference, including pathology images from a pathologist's own microscope.

An important secondary function of the MDTM is the education of undergraduate and postgraduate students and other healthcare professionals on the value of histopathology and cytopathology in the diagnostic process. This applies to both making a diagnosis and in recognising key features of importance for further management and prognosis. The opportunity to project images is useful, although not essential, in fulfilling this objective.

4.2.1 Use of videoconferencing in the MDTM

With the increasing development of hub-and-spoke models for delivery of cancer care, videoconference arrangements are common at MDTMs. Equity of access is very important: all members of the MDT should be able to review information being presented on patients. An important component of patient safety is the identification of discrepancies in any of the information being presented such that this can be drawn to attention and resolved. This includes pathologists being able to participate in a full discussion of relevant cases from a variety of physical locations, including home (where appropriate).

There should be a commitment from all NHS sites to provide technology and equipment (including videoconferencing capabilities on individual computers) that is good quality and reliable, up to at least a minimum network-wide specification, which considers issues such as:

- standards of data transfer
- image quality
- bandwidth; specifically, speed for loading images, time delay for discussions
- inter-hospital compatibility, cross-site co-ordination, etc.

This specification must be kept under review and updated in light of technological advances.

There should be technical support for MDTMs so that assistance can be provided in a timely fashion (i.e. during the meetings) if there are problems with any IT systems or videoconferencing links during the meeting. The quality of MDT decision-making can be seriously affected when equipment fails.

5 References

1. Calman C, Hine D. *A Policy Framework For Commissioning Cancer Services. A Report By The Expert Advisory Group On Cancer To The Chief Medical Officers Of England And Wales*. Available at: https://webarchive.nationalarchives.gov.uk/ukgwa/20130123204024/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4071083.

2. NHS England. *Streamlining Multi-Disciplinary Team Meetings*. Available at: https://www.england.nhs.uk/wp-content/uploads/2020/01/multi-disciplinary-team-streamlining-guidance.pdf.

3. National Cancer Action Team. *The Characteristics of an Effective Multidisciplinary Team (MDT)*. Available at: http://www.ncin.org.uk/cancer_type_and_topic_specific_work/multidisciplinary_teams/mdt_development.

4. The Independent Cancer Taskforce. *Achieving World Class Cancer Outcomes: Strategy 2015–2020*. Available at: http://www.cancerresearchuk.org/about-us/cancer-taskforce.

5. Lord Carter of Coles. *Report of the Review of NHS Pathology Services in England*. Available at: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4137606.

6. Patkar V, Acosta D, Davidson T, Jones A, Fox J, Keshtgar M. Cancer multidisciplinary team meetings: evidence, challenges, and the role of clinical decision support technology. *Int J Breast Cancer* 2011;2011:831605.

7. James G. *Report Of The Independent Inquiry Into The Issues Raised By Paterson*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863218/issues-raised-by-paterson-independent-inquiry-report-print-cover.pdf.

8. Soukup T, Lamb BW, Morbi A, Shah NJ, Bali A, Asher V *et al.* A multicentre cross-sectional observational study of cancer multidisciplinary teams: Analysis of team decision making. *Cancer Med* 2020;9:7083–7099.

9. Hoinville L, Taylor C, Zasada M, Warner R, Pottle E, Green J. Improving the effectiveness of cancer multidisciplinary team meetings: analysis of a national survey of MDT members' opinions about streamlining patient discussions. *BMJ Open Qual* 2019;8:e000631.

10. Soukup T, Lamb BW, Sevdalis N, Green JS. Streamlining cancer multidisciplinary team meetings: challenges and solutions. *Br J Hosp Med* 2020;81:1–6.

11. Bainbridge S, Cake R, Mike M, Furness P, Gordon B. *Testing Times To Come? An Evaluation of Pathology Capacity Across the UK*. Available at: https://www.cancerresearchuk.org/sites/default/files/testing_times_to_come_nov_16_cruk.pdf.

12. NHS. *NHS Long Term Plan*. Available at: https://www.longtermplan.nhs.uk.

13. NHS England. *Cancer Alliances – Improving Care Locally*. Available at: https://www.england.nhs.uk/cancer/cancer-alliances-improving-care-locally/.

14. National Institute for Health and Care Excellence. *Cancer Service Guideline [CSG8]: Improving Outcomes For People With Skin Tumours Including Melanoma*. Available at: https://www.nice.org.uk/guidance/csg8.

15. Lewis T, Wood M, Myers M. *Pathology GIRFT Programme National Specialty Report*. https://www.rcpath.org/discover-pathology/news/girft-report-september.html.

16. Thorpe A, Al-Jafari M, Allen D, Carr R, Helliwell T, Sanders S. *Guidelines On Staffing And Workload For Histopathology And Cytopathology Departments (4th Edition)*. London, UK: The Royal College of Pathologists. Available at: https://www.rcpath.org/uploads/assets/aaae5525-894f-472c-ae2dfa281829e3d1/g107_guidelinesstaffingworkload_sep15.pdf.

Appendix A Summary of the potential roles and attributes of an MDT pathologist

Essential roles

- Attendance at MDTMs (to a locally defined standard).
- Review of cases (as per MDT SOP).
- Agree pathology standards with MDT lead clinician (in conjunction with the local Cancer Alliance).
- Nominate a deputy who is available to cover for periods of leave.
- Ensure effective communication with the local Cancer Alliance.

Extended roles (variable, according to local circumstances)

- Ensure that disease-specific standard operating procedures in the laboratory are fit for purpose.
- Attendance at MDT business meetings.
- Working with laboratory managers to ensure that service developments include consideration of the implications for pathology services.
- Lead for CPD in the specialist area.
- Lead for training.
- Lead for research.

Personal attributes

- Appropriate training and experience.
- Participation in appropriate external quality assurance scheme(s).
- Good team-working and communication skills.