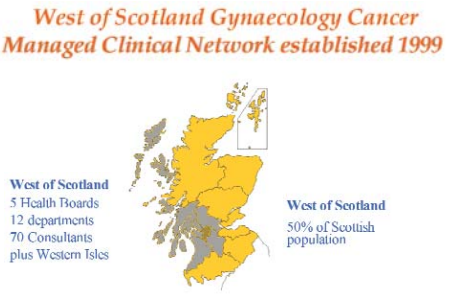
The Multidisciplinary Team Meeting – Its Role and Benefits in the Treatment of Gynaecological Cancer in the West of Scotland



Dr Jonathan Davis,
Consultant Gynaecological Oncologist on behalf of the West of Scotland Gynaecological Cancer Network.

Correspondence to:
Dr Jonathan Davis
Department of Gynaecological Oncology,
Ward 24, Glasgow Royal Infirmary, G4 0SF, UK.
Email: jo.davis@northglasgow.scot.nhs.uk

The West of Scotland Cancer Network serves a population of 2.6 million representing 50% of the Scottish population. It originally represented a collaboration embracing five Health Boards which incorporated 12 gynaecological departments and provides specialist services to patients in the Western Isles. The network was established in 1999 and was born from the desire to create a dedicated network of oncology professionals to ensure that patients received the highest standards of care through expert investigation and treatment no matter where they lived within the region.

The Gynaecological Cancer Network was the first to be established in the West of Scotland. One of the initial aims was to enhance the referral system for specialist opinion and treatment incorporating a multidisciplinary approach. Although the concept of multidisciplinary team (MDT) meetings was not new to us we wanted to look at ways to formalise the whole process and integrate technology to help build a clinical information system to record patient details. The Beatson Oncology Centre became the site for our MDT meetings.

The article looks at how the MDT meetings were developed, the technology used, how they work today and the benefits for clinicians and patients.

Background

A successful multidisciplinary team (MDT) meeting has evolved in the West of Scotland over the past eight years. There are many models of MDT meetings now in existence, but described here is a particularly successful process, because it was conceived within a period of time when cancer services were being strongly supported by the Scottish Executive and a Managed Clinical Network for Gynaecological cancer had been established.

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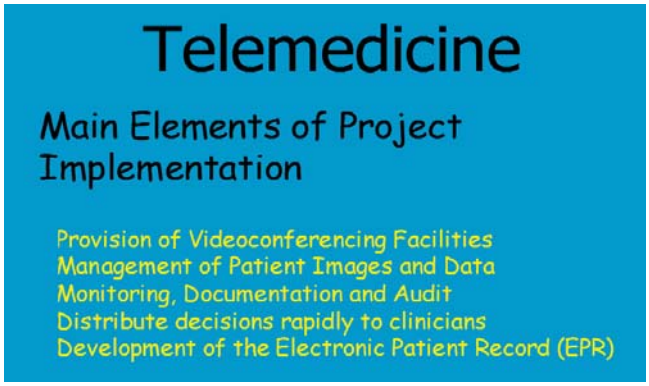
Money was available in 2001 from the Scottish Telemedicine Action Forum to develop telemedicine projects. The Gynaecological Cancer Network bid to set up a regional multidisciplinary meeting bringing all five West of Scotland Health Boards together. The bid was successful and £800,000 was granted to develop, equip, design and establish the multidisciplinary meetings within a three year period.

A regional organising committee was established and a project manager employed. From the outset it was realised that the opportunity existed to create more than another videoconference facility. The plan was to take it a step further and bring the latest IT processes into the project.

The ambition was to create a real time discussion forum with an output that recorded the activity of the meeting with regard to each patient and the decisions made. This would be incorporated into a record that could be distributed to all professionals involved, forming the basis of an electronic record of the patient whilst supporting an ongoing audit. So from the beginning a list of essentials were established which identified the basic elements required.

- All individuals involved in decision making or providing comment should be linked by the system.
- Immediate provision of all relevant data at all sites giving essential details to all clinicians making management decisions.
- Allow simultaneous viewing of pathology and imaging.
- Clinical data to be available from all relevant databases with facilities for immediate updating during the meeting.
- Rapid dissemination of decisions made to the referring consultant.
- Planning and follow up relayed directly to those responsible for organising on-going patient care.

At this time oncological expertise was based in one regional centre, The Beatson Oncology Centre, providing a service to the whole of the west of Scotland, in which half of Scotland's population live. An important aim was to ensure equitable access to the oncologists in the Centre and to allow the clinicians in the other regions of the west of Scotland to take



At the initiation of the project there were over 14,000 new referrals of cancer in the west of Scotland each year of which 700 were gynaecological referrals. If all cases of gynaecological malignancy were referred to the MDT meeting then every patient would have equal access to cross specialty expertise

part in the debate, particularly regarding their own patients. At the initiation of the project there were over 14,000 new referrals of cancer in the west of Scotland each year, of which 700 were gynaecological referrals. If all cases of gynaecological malignancy were referred to the MDT meeting then every patient would have equal access to cross specialty expertise.

It was agreed that the meeting would be supported by a video conferencing facility connecting the cancer centre with one site in each of the five surrounding Health Boards.

Initial MDT meeting activity

The basis of the MDT meeting was an informal gathering of oncologists, surgeons and pathologists set up in 1997, whereby selective cases were presented to discuss chemotherapy management or trial enrolment. With the success of the bid to support a telemedicine project (in 2000) the meeting was formalised, a lecture theatre commandeered and a wider audience invited, in particular clinical nurse specialists and junior doctors.

Once the sessional basis of these meetings had been recognised and the telemedical system established and installed in September 2002, an Operational Policy was required.

The main principles were:-

- Registration of individuals attending meeting.
- Anonymisation of patient details.
- List of minimal base line data for acceptance of a case into the MDT process.
- Deadline for accepting cases into MDT meeting to be set.
- Written synopsis of each case history to be prepared.
- Chairperson at end of each case discussion to:
  - confirm what plan of action has been agreed and who is responsible for following the patient up.
  - agree form of wording that summarises plan of action.
  - check that data in database is correct.
- Standard format for reports, which should include demographic data of patients entered automatically from the database.
- Copy of the MDT report should go to all relevant clinicians, including the general practitioner.

An example of front page of MDT meeting case record.

Meeting management

An early decision was to employ a coordinator, who would set up the meeting each week, collate the patient's details into a special template, distribute the patient list to attending clinicians, attend the meeting and record the decisions made, under guidance from the meeting.

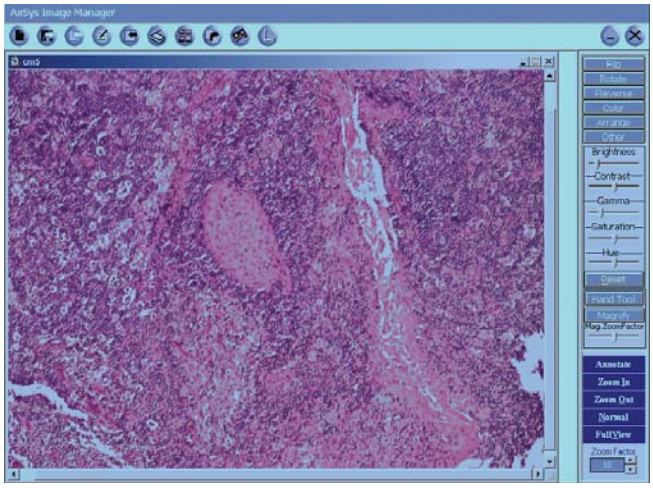
Traditionally in many Networks this organisation has been the responsibility of junior doctors, but with a regional meeting with up to ten different gynaecological departments contributing cases this was not practical.

IT infrastructure

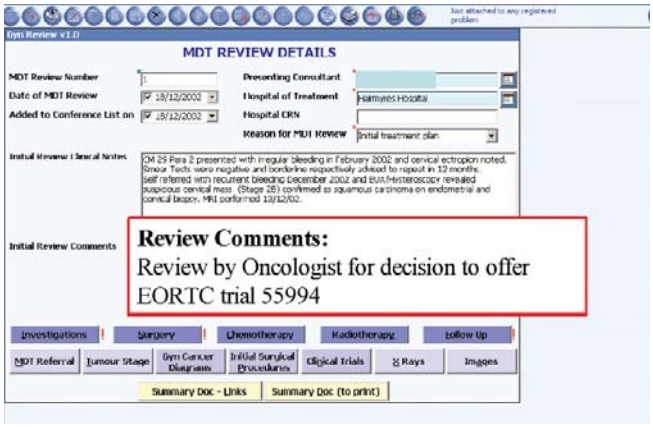
The plan was to create an IT backdrop which would effectively allow the organisation of the meeting to be automated.

The key principles were:-

- An individual electronic data set would be established for each patient, with automatic collection of demographic details.
- All potential professional contributors to the meeting would be detailed.
- A separate meeting sheet would be created, populated with background data and allowing clinical details to be



Example of histology included in patient MDT meeting record (positive lymph node, cervical cancer).



A review page after meeting discussion of a case of cervical cancer. Meeting decision highlighted.

added before and during the meeting.

- Remote contribution to the meeting would be established, so that clinicians throughout the region could add patients directly to each meeting.
- Patient episodes could be added and discussed at further meetings, with retrieval of prior details.
- Meeting details would be available immediately both centrally and locally to all clinicians involved in a specific patient's care.
- There would be linked access to laboratory data.
- Images could be downloaded into the database and be available for review by the appropriate specialist at the meeting and by clinicians later.
- Clinicians could access the records from remote NHS based computers.

To facilitate the multidisciplinary clinical decision-making process a Clinical Information and Image Management System (CIIMS) was required. After a bidding process the successful company was AxSys Technology. It was their Excelicare solution that provided the software platform installed at the various hospitals that gave clinicians access to a core patient record which could be shared during the MDT meetings.

This IT facility was developed as a key component of the MDT meeting as it enables the multidisciplinary team manager to ensure that all patient details are ready for presentation. It also creates a list of patients to be discussed and automatically sends these lists to all clinicians.

As patients details are displayed on a screen, participants are able to review and discuss a treatment plan. These screens are simultaneously seen at each of the participating sites. It has been this IT support that has made it possible to send automated patient summary reports to all clinicians after each MDT meeting session.

Constitution of MDT meetings

In order to be valid and consistent, the MDT meeting should always have a minimum number of specialists. The process is meant to safe-guard patients, such that all relevant important elements of their care are considered prior to a decision being made. In addition, the process should safe-guard the clinician to see that he/she has sought views from as wide a body of opinion as possible. It is essential that all patients going though the process have the same degree of professional competence available when their cases are discussed, therefore at any MDT meeting an essential core of professionals must be represented.

Redefining multidisciplinary debate

An important issue was to encourage debate and avoid individuals dominating the decisions being made. To this end we decided that several specialists from each subspecialty should attend, so that discussion between gynaecological oncologists or between clinical oncologists, for instance, would occur. This created an environment where true discourse would happen rather than 'the surgical opinion' as expressed by the token gynaecologist attending. Management support was necessary and appropriate job plans created.

In certain specialties this was not possible owing to small consultant numbers e.g. medical oncologists, or the failure to recognise the relevance of specialist input, coupled with service pressures, e.g. radiologists. Nonetheless, two radiological consultants from the region have supported our meetings and give constant attendance on a rota basis.

Conventional Telemedicine up to this time can best described as follows:	
• Tele-Radiology, Tele-Dermatology, Tele-Pathology, Minor Injury Units, A&E	
Technology Data:	Point-to-Point Video-conferencing Mainly Image Based Store & Forward
Goal:	Diagnosis
Focus:	Expert-centric, Institution-centric

The extension of Telemedicine with IT support	
• Data:	Case Record and all clinical details
• Focus:	Patient-centric, clinically collaborative
• Technology:	Multi-Point Video-conferencing Store & Forward
• Goal:	On-going Patient management

This policy has been successful and with the expansion of the consultant body in the Regional Gynaecological Oncology Unit and the West of Scotland Cancer Centre all meetings have two or more consultants from the critical specialties.

In addition, we have recognised the importance of education within the multidisciplinary meeting. Junior staff in all related specialties attend, as do medical students.

Confidentiality issues

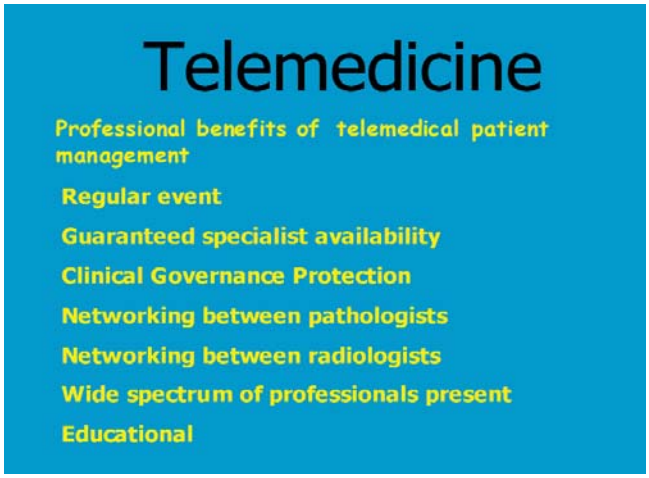
The current law requires that unless the MDT meetings are restricted to the core members of the multidisciplinary process, then the discussion has to proceed without identifying the patient. Only surrogates are allowed to refer to each patient. Initials and date of birth only are used at all times.

A list of the patients' names, is provided to all the core clinicians and specialists. Further assurance regarding the correct identify of the patient is achieved because the clinician presenting the case is identified and brings the clinical information to the meeting.

The meeting should be opened by the Chairperson with a reminder of the importance of confidentiality and that anonymisation of the patient's name is required. Everyone present should have signed the Register of attendance.

Completion

Completion was achieved by the target deadline of June 2003. It has been a very successful enterprise and we are still expanding and developing the process. We hope that a related



IT system also developed by AxSys Technology will enable us to track patients through their journey of care so that delays, bottle necks and targets will be monitored.

Not every ambition has been achieved, for instance, because of the need to breach 'fire walls', the local IT service have yet to establish links with General Practitioners so that reports are not yet automatically distributed to Primary care.

The benefits and the future

The benefits of the MDT meeting and its real-time IT support have been significant because clinicians and medical staff throughout the region are now able to collaborate in the care of patients by sharing of information.

Through the video conferencing process the MDT can now discuss individual cases without extensive traveling, so patients are referred and seen without delay. All patients are guaranteed that they will receive a specialist opinion regardless of geography and that all appropriate clinicians are involved in their care. Clinicians have benefited from the sharing of knowledge through cross specialty discussions. The meetings also provide an excellent training ground for junior doctors and other clinical staff who attend.

The weekly conference has meant that all clinical staff have had to raise their game. With an enforced weekly deadline it is the responsibility of each member of the MDT to deliver the necessary information so it can be discussed.

Our multidisciplinary meeting infrastructure has:-

- Helped develop cancer care pathways.
- Demonstrated the potential of electronic patient records.
- Supported clinical governance.
- Provided clinical and management information.
- Improved general service standards.

Now that the MDT meeting and its audit systems have been running for eight years the data stored now contains clinical details on several thousand patients. We are now starting to interrogate this information and use it for research into the consistency and effectiveness of patient treatment plans and the incidences of different types of cancers. It will help us to look at ways to improve cancer treatment outcomes and implement care pathways within national datasets.

Working towards a cancer EPR is an exciting factor of this project and its continuing success will be down to the continued support and ingenuity of individuals who are driving such projects within the Scottish NHS. ■

Multidisciplinary – A definition

A multidisciplinary team is a group of people from different disciplines (both healthcare and non-healthcare) who work together to provide care for patients with a particular condition. The composition of multidisciplinary teams will vary according to many factors. These include: the specific condition, the scale of the service being provided, and geographical/socio-economic factors in the local area.

Useful websites

http://www.beatson.scot.nhs.uk – Beatson Oncology Centre
http://www.woscan.scot.nhs.uk – West of Scotland Cancer Network
http://www.sehd.scot.nhs.uk – Scottish Executive Health Department
http://www.nhshealthquality.org – NHS Quality in Scotland
http://www.cancerinscotland.scot.nhs.uk - Cancer in Scotland – Action for Change
http://www.palliativecarescotland.org.uk/ - Scottish Partnership for Palliative Care
http://www.axsys.co.uk – AxSys Technology