Cancer MDTs: do they make a difference?

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Conflict of Interest Disclosure
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Has no real or apparent conflicts of interest to report.
Aims

- Where we are now – the changing face
- Do they make a difference? The evidence
- Issues with the evidence and assessing the impact
- Suggestions for the future
Background to MDTMs

- Established in the 1990s
- Aimed to:
  - Improve consistency
  - Improve communication
  - Improve clinical outcomes
  - Increase recruitment to trials
  - Improve audit
  - Increase well-being of patients
  - Provide educational opportunities for staff
  - Increase job satisfaction
Background

- When clinicians needed to cooperate more, MDTMs brought people together
Where are we now?

- 20% increase in patient discussions year on year since 2011 (UK)
- Average number of patients discussed – 15-30
- Over 10% patients need more than one discussion
- Average length of discussion 3-9 minutes
- 10 – 15% recommendations were not implemented
- Failure to reach a decision in 27%-52% cases
Where are we now?

- Case discussions changed the initial treatment plans in 33% cases – particularly complex cases and recurrence, rare in standard cases
  - (Alexandersson et al 2018 – Sweden)

- Patients often ‘wait’ for a decision until the next MDTM

- Discussions involving 1 or 2 people not uncommon

- Nurses / clinical nurse specialists often did not contribute
Where we are now?

• In a working week:
  – 10 – 15% oncologists are in MDTMs
  – 7– 8% radiologists are in MDTMs
• Base cost per patient £428 (average 4 discussions per patient)
• Mean cost per case discussion €212 (91-595)
• Estimated to cost the UK £154.3 million per year
Do they make a difference to outcomes?
Do they make a difference?

- Assessed whether the presence of a tumor board was associated with recommended cancer care, or outcomes
- Found little association
- Acknowledged the variation in makeup of tumor boards

Keating et al (2012)
Site specific tumours

<table>
<thead>
<tr>
<th>Tumour site</th>
<th>Evidence for MDTM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>improved survival, unclear which components of the MDT working made a difference</td>
</tr>
<tr>
<td>Lung</td>
<td>weak evidence for improved survival</td>
</tr>
<tr>
<td>GI</td>
<td>care provided by the MDT (including the MDTM) improved survival compared to care provided by an independent surgeon</td>
</tr>
<tr>
<td>GU</td>
<td>no evidence MDTMs made a difference</td>
</tr>
</tbody>
</table>
## Site specific tumours

<table>
<thead>
<tr>
<th>Site</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gynae</td>
<td>MDTMs led to changes in diagnoses and treatment plans but no evidence on outcomes</td>
</tr>
<tr>
<td>H &amp; N</td>
<td>Evidence for improved 2 year survival</td>
</tr>
<tr>
<td>Colorectal</td>
<td>No evidence MDTMs made a difference</td>
</tr>
</tbody>
</table>
Do they make a difference?

• “The published literature provides little evidence that they actually improve outcomes or survival”
  • Croke & El-Sayed (2012)

• Overall evidence is stronger for changing management than affecting survival
Patient satisfaction

• Improved satisfaction in national patient experience between 2000 – 2004. Improvements greatest in the most established tumour MDTs (breast, colorectal, lung)
Assessing the evidence

• Difficult to robustly assess
Assessing the evidence

- Most studies rely on before and after designs – subject to confounding
- Most studies assess the impact on decision-making rather than outcomes
- Improvements in outcomes difficult to attribute specifically to MDTMs due to multiple concurrent changes
- MDTMs - complex intervention
Evaluating MDTMs

• “it is always too early (for rigorous evaluation) until, unfortunately it is too late”

  • Buxton’s law (in Munro et al 2015)
The future

• MDTMs somewhat victims of their own success

• Many clinicians frustrated that every decision must now go through a meeting

• Agreement that MDTMs can foster education and collegiate working
Suggestions

• Smaller numbers of patients being discussed at face to face meetings (complex cases)
• Consider a ‘triage’ process to decide which patients should be discussed at face to face meetings
• Use electronically based discussions – patients with straightforward problems wouldn’t need to wait for a weekly face to face meeting
Suggestions

- Consider:
  - communication with primary care (web based?)
  - audit trails
  - evaluation of changes
In summary

• Unclear if cancer MDTMs really do make a difference to patient outcomes

• Considering they are cost and time intensive, the process would benefit from reconsidering and redesigning
Thank you