Multidisciplinary teamwork in breast cancer care

A perspective from the European Partnership for Action Against Cancer (EPAAC) framework

Josep M. Borràs
Joan Prades

2nd International Congress of Breast Disease Centers

Paris, 9 -10th February
Introduction

Lisbon round-table, Portuguese EU Presidency (2007)

European Commission launch the European Partnership for Action Against Cancer, EPAAC (2009)

~ Cancer care organisation matters ~

Specific actions to be held on health services at EU level

Multidisciplinary care and cancer networks
To identify and assess **best cancer care practices** across European health services, promoting the exchange of experiences focusing on innovative organizational approaches, including patient’s perspective

**Key areas**

- **Multidisciplinary care** and national / regional networks (ICO, NCOD, IPOS, EAPC, BMH, ECCO, Lombardia, ECPC)
- Standardization of treatment, symptom assessment and follow-up of palliative care (EAPC and NTNU)
- Standards of care for children with cancer (SIOPE and Polish MH)
- Complementary and Alternative Medicine (CAM): evidence and utilization in Europe (Regione Toscana)
Work Package 7 Associated partners

- National Coordination for Oncological Diseases, High Commissariat of Health, Ministry of Health, Portugal
- Polish Ministry of Health, PMH
- Catalan Institute of Oncology, ICO
- French National Cancer Institute, INCa
- European Health Management Association, EHMA
- European Society for Paediatric Oncology, SIOPE
- European Hospital and Healthcare Federation, HOPE
- European Society for Clinical Nutrition and Metabolism, ESPEN
- European Oncology Nursing Society, EONS
- Norwegian Directorate of Health, Norwegian University of Science and Technology, NTNU
- European School of Oncology, ESO
- Regione Toscana, Italy, RTI
- Belgium Ministry of Health, BMH
- Institute of Public Health, Ljubljana, Slovenia, IPH
Why breast cancer is relevant in this context?

**Breast cancer** as a model for MDT

1) High incidence
2) Age distribution
3) Screening programs
4) Multimodality therapies
5) Long survivorship (i.e., chronic components)
6) International experiences
Systems interaction through the breast cancer care process: the Catalonian Health Service case
# Breast cancer – Main changes in organisation and delivery of services

<table>
<thead>
<tr>
<th>Organisational system</th>
<th>Focus</th>
<th>Intermediate result</th>
<th>Potential benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast-track referral system</td>
<td>GP’s ability in symptom identification and clear referral between levels of care</td>
<td>Rapid diagnosis, improved efficiency</td>
<td>Improved clinical outcomes, reduction of patients’ anxiety levels</td>
</tr>
<tr>
<td>Multidisciplinary team</td>
<td>Decisions on diagnosis and therapeutic management planning</td>
<td>Consensus-based decisions</td>
<td>Improved clinical outcomes, better patient management</td>
</tr>
<tr>
<td>Screening</td>
<td>Population at risk</td>
<td>Early detection</td>
<td>Better prognosis</td>
</tr>
<tr>
<td>Case management</td>
<td>Pathway management and patient education and support</td>
<td>Responsiveness (to people’s non-medical expectations), better self-care</td>
<td>Improved continuity and coordination of care</td>
</tr>
</tbody>
</table>

→ First disease in transition from disease-focused to patient oriented management
Methods

FIRST STEP: RESEARCH ON MULTIDISCIPLINARY CANCER CARE

SECOND STEP: WORKSHOP WITH EXPERTS

Systematic Review of the evidence (PubMed; 2005-2011)

→ Update of the work of Wright et al 1960-2005 (CCO)

+ Environmental Scan on the European National Cancer Plans
Systematic review of the literature

Two types of original articles included:

1. Impact of MD cancer patient management on outcomes (clinical, process)
2. Key organisational components

444 original articles (showing positive results) were included

48 articles accepted

Type 1, n=20  Retrospective, prospective, questionnaire, before-after

Type 2, n=28  Descriptive (qualitative, case-studies)
Systematic review of the literature

Two types of original articles included:

1. Impact of MD cancer patient management on outcomes (clinical, process)
2. Key organisational components

444 original articles (showing positive results) were included

48 articles accepted

Papers accepted:
1. Original research - data-based papers: original data or new analyses of data on MDC.
2. Program-description non data based: description of an intervention or programme without presentation of quantitative data.

Papers non accepted:
3. Discussion papers or commentaries: editorials, position papers, news, letters, discussion of case reports
4. Reviews (data or non-data based) of research in this area.
### Breakdown of a sample of articles

<table>
<thead>
<tr>
<th>Art</th>
<th>T*</th>
<th>Origin</th>
<th>Tumor site</th>
<th>MD setting</th>
<th>Type of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>213</td>
<td>1</td>
<td>USA</td>
<td>Urologic malignancies</td>
<td>Tumor board</td>
<td>Prospective cohort study</td>
</tr>
<tr>
<td>268</td>
<td>2</td>
<td>USA</td>
<td>Head and neck</td>
<td>Tumor board</td>
<td>DKC**</td>
</tr>
<tr>
<td>270</td>
<td>2</td>
<td>UK</td>
<td>Esophageal adenocarcinoma</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>286</td>
<td>1</td>
<td>USA</td>
<td>Pancreas</td>
<td>TB / MD conference</td>
<td>Prospective cohort study</td>
</tr>
<tr>
<td>288</td>
<td>2</td>
<td>Australia</td>
<td>Breast</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>307</td>
<td>1</td>
<td>UK</td>
<td>Colorectal liver metastases</td>
<td>MDT meeting</td>
<td>Prospective study of patients (1996-2006). Comparing patients referred to a MD specialist hepatobiliary unit (with liver surgeon) vs patients referred to local colorectal MDTs</td>
</tr>
<tr>
<td>319</td>
<td>2</td>
<td>USA</td>
<td>Prostate</td>
<td>MD cancer clinic</td>
<td>DKC</td>
</tr>
<tr>
<td>340</td>
<td>2</td>
<td>USA</td>
<td>Head and neck</td>
<td>Tumor board</td>
<td>DKC</td>
</tr>
<tr>
<td>360</td>
<td>2</td>
<td>USA</td>
<td>Rectum</td>
<td>Tumor board</td>
<td>DKC</td>
</tr>
<tr>
<td>370</td>
<td>2</td>
<td>UK</td>
<td>All</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>374</td>
<td>1</td>
<td>Germany</td>
<td>Gynecological cancer</td>
<td>Online TB conference</td>
<td>Questionnaire of participants in an online national tumor conference</td>
</tr>
<tr>
<td>390</td>
<td>2</td>
<td>UK</td>
<td>Colorectal</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>394</td>
<td>2</td>
<td>UK</td>
<td>Colorectal</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>397</td>
<td>2</td>
<td>Australia</td>
<td>Breast</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>399</td>
<td>1</td>
<td>UK</td>
<td>Gastro-esophageal</td>
<td>MDT meeting</td>
<td>Prospective cohort study (1997-2002)</td>
</tr>
<tr>
<td>405</td>
<td>1</td>
<td>USA</td>
<td>Breast</td>
<td>Tumor board</td>
<td>Retrospective review of medical records</td>
</tr>
<tr>
<td>409</td>
<td>2</td>
<td>Switz/UK</td>
<td>All</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>424</td>
<td>1</td>
<td>UK</td>
<td>Esophageal</td>
<td>MDT meeting</td>
<td>Retrospective cohort review of patients managed by a MDT (1998-2003) or by surgeons working independently (1991-97)</td>
</tr>
<tr>
<td>426</td>
<td>2</td>
<td>UK</td>
<td>Gynecological cancer</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>429</td>
<td>2</td>
<td>UK</td>
<td>Breast</td>
<td>MDT meeting</td>
<td>DKC</td>
</tr>
<tr>
<td>436</td>
<td>1</td>
<td>UK</td>
<td>Rectum</td>
<td>MDT meeting</td>
<td>Retrospective cohort study of rectal cancer patients (1999-2002). Comparing CRM+ ve rates of patients discussed at MDT meeting vs those not discussed</td>
</tr>
</tbody>
</table>

*Type 1: MD cancer patient management change on outcomes; type 2: key components

**Descriptive on key components**
Analytical summary of the papers included on the review

Multidisciplinary cancer care: analytic vs implementation perspective

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Problems</th>
</tr>
</thead>
</table>
| Analytic perspective | - Integrative view of the process of care  
- Interface between MDT and other areas such as palliative care, chronic care, oncogeriatrics, etc |
| | - Difficult to identify specific advantages: MD care occurs simultaneously with rapid changes in treatment and use of CPG  
- Difficult to define MD specific model of cooperation: tumour board, one-stop diagnosis, clinical unit, MD follow-up, etc.  
- Interaction with related policy themes: centralization, high professional specialisation and introduction of standardized protocols  
- Clinical outcomes: positive but weak results |
| Implementation perspective | - Specific response to the increasing complexity of cancer care  
- Better adherence to clinical practice guidelines  
- Enhanced coordination of hospital services  
- Increased patient access to clinical trials |
| | - Difficult to identify appropriate leaders  
- Need to focus on local adaptation once common objectives have been set up  
- Fragmentation of cancer care financing  
- Inconsistent communication between team and patient |
Best-practices on multidisciplinary cancer care (1)

Basic criteria for MDT working

• Leadership and team dynamics
  – Roles: chairman (facilitator) and/or clinical coordinator, nurse case manager
  – Shared objectives (explicitly made, mutual respect)
  – Full participation (important for effective implementation of decisions)

• Administrative support
• Staff time assigned
• Specific funding from health care system

Other key requirements

• Patterns of referral within hospital/area
• Shared evaluation of the clinical outcomes

Based on Fleissig et al review (2006)
**Best-practices on multidisciplinary cancer care (2)**

**Additional organisational criteria**

- Every new cancer case (inpatient or ambulatory) under MDT guidance
- Cancer professionals associated with specific MDT (mandatory participation MTM)
- Nature of agreements: from ‘recommendations’ to ‘binding decisions’
- Perspective on the whole process of care (key decisions made in *staging, treatment, follow-up* and *non-medical needs*)
- Coordination of follow-up (avoid duplications and focus also on general health conditions)
- Educational opportunity for physicians in training
Sample of articles: component of care focus

<table>
<thead>
<tr>
<th>MDT scope (specific component focus)</th>
<th>Nº of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>6</td>
</tr>
<tr>
<td>Diagnosis and treatment</td>
<td>5</td>
</tr>
<tr>
<td>Diagnosis, treatment and follow-up</td>
<td>2</td>
</tr>
<tr>
<td>Treatment - complex cases (multi-institutional)</td>
<td>1</td>
</tr>
<tr>
<td>Staging accuracy and treatment selection</td>
<td>1</td>
</tr>
<tr>
<td>‘Single-day’ clinics/’one-stop care’ (prior to TB)</td>
<td>2</td>
</tr>
<tr>
<td>Follow-up</td>
<td>1</td>
</tr>
<tr>
<td>Access to clinical trials</td>
<td>2</td>
</tr>
</tbody>
</table>

…treatment is not the only focus in literature when dealing with MDTs working.
Limitations

- Widespread policy adoption of the “multidisciplinary discourse”, but few complete experiences (published), which are restricted to specific health systems or centres (mainly in USA, UK and Australia)

- Difficult to define what “MD cancer care” is

- Quality of the evidence
Conclusions

• Logical approach to organising complex procedures and clinical decision making involving professionals with different backgrounds

• MDT setting as an answer to the increasing specialisation and degree of expertise among professionals

• Seamless process of care: need perceived by patients