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National Board of Health

Danish Experience on developing and implementing Integrated Cancer Pathways

HSPRN Conference Toronto March 29 2011
Integrated Clinical Pathways
Political agreement October 2007

- **Problem**
  Huge waiting times and low survival rates for cancer patients

- **Aim**
  Acute treatment for all patients with cancer or suspected

- **Task**
  Develop and implement Integrated Pathways for all Cancers by end of 2008
  - Waiting times only allowed if health professionally grounded
  - Pathways based on National Clinical Guidelines
  - Monitoring of timeliness of diagnosis and treatment
  - All cancer patients must have a contact person in hospital part
  - Implementation must be finalized within three months after release
What does an integrated clinical pathway comprise?

- Focus on the patient journey
- Responsible medical specialty clearly defined
- Defined suspicion based criteria for GP’s referral of patients suspected for cancer to hospital integrated pathway
- Pathways to be based on national clinical guidelines
- Standard time for each phase of the pathway specified for the standard patient
- Predefined steps in diagnostics and treatment with pre-booked slots for all procedures
- Set time points for patient information when clinical decisions are made
- Multidisciplinary team approach
- Primary contact person and pathway coordinator
- Fixed time points in the monitoring of all patients
Transforming political agreement into practice

**National Task Force for Cancer**
- National Board of Health
- Ministry of Health
- The Association of Danish Regions + 5 Health Directors
- The Association of Danish Municipalities

**Cancer Unit** across the Ministry of Health and National Board of Health reporting to Minister

14 Clinical working groups
14 Clinical Working Groups

Objective: Develop 34 integrated cancer pathways

All 14 groups followed a common template for each of 34 cancers

Members of a clinical working group

Ex: Gynecological Cancers: Uterus Ovary Cervix Vulva
   - National Board of Health
   - Gynecological surgeons –
     - Gyn scientific society + each of 5 regions + DMCG
   - Gynecological oncologist
   - Gynecological pathologist
   - Gynecological radiologist
   - General Practitioner
Time table for the implementation of the agreement of *integrated clinical pathways for cancer diseases*

<table>
<thead>
<tr>
<th>Disease specific groups (multidisciplinary)</th>
<th>National implementation</th>
<th>Cancer diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Colorectal</td>
<td>April 2008</td>
<td>Colonic cancer, rectal cancer</td>
</tr>
<tr>
<td>2  Lung cancer</td>
<td>April 2008</td>
<td>Lung cancer</td>
</tr>
<tr>
<td>3  Head and neck cancer</td>
<td>April 2008</td>
<td>Head and neck cancer</td>
</tr>
<tr>
<td>4  Breast cancer</td>
<td>April 2008</td>
<td>Breast cancer</td>
</tr>
<tr>
<td>6  Leukemia</td>
<td>September 2008</td>
<td>Myelomatosis, acute leukemia, lymphomas and myelodysplastic syndrome</td>
</tr>
<tr>
<td>7  Cancer in the urinary system</td>
<td>November 2008</td>
<td>Cancer in the urinary bladder and kidney</td>
</tr>
<tr>
<td>8  Skin cancer</td>
<td>November 2008</td>
<td>Malignant melanoma, non malignant melanoma (January 2009)</td>
</tr>
<tr>
<td>9  Cerebral cancer and in the nervous system</td>
<td>November 2008</td>
<td>Cerebral cancer</td>
</tr>
<tr>
<td>10 Masculine cancer diseases</td>
<td>January 2009</td>
<td>Cancer in testicle, prostate and penis</td>
</tr>
<tr>
<td>11 Upper gastrointestinal cancer</td>
<td>January 2009</td>
<td>Cancer in the liver and cystic duct, cancer in esophagus, cardia, stomach, pancreas and metastases in the liver</td>
</tr>
<tr>
<td>12 Cancer diseases in children</td>
<td>January 2009</td>
<td>Tumor in the brain and spine, leukemia, lymphatic cancer, tumor in the chest, abdominal cavity, musculoskeletal system, abdominal and chest wall</td>
</tr>
<tr>
<td>13 Cancer of the eye</td>
<td>January 2009</td>
<td>Malignant melanoma i uvea, tumor orbital, retinoblastoma</td>
</tr>
<tr>
<td>14 Cancer – orthopedic surgery and others</td>
<td>January 2009</td>
<td>Osteosarcomas, soft tissue sarcomas (cancer in the connective tissue)</td>
</tr>
</tbody>
</table>
An integrated clinical cancer pathway

From National Clinical Guidelines to Integrated Clinical Pathways

Danish National Clinical Guideline

GP Referral to clinical pathway | In hospital Diagnostics | Treatment | Post treatment | Follow up

Monitoring

Care, rehabilitation and palliation
Flow chart
Clinical pathway for the standard cerebral cancer patient

1. Preoperative
   - General practitioner
   - Neurological examination
   - MR scan
   - X-ray of the chest
   - Multidisciplinary team conference
   - Prenomination in neurologic out-patients' clinic
     - Surgery
     - Postsurgical MR scan
     - Multidisciplinary team conference
     - Oncological consultation
     - Radio- and/or chemotherapy
   - Follow up
   - Follow up

2. Examination and Investigation
   - Multidisciplinary team conference

3. Treatment
   - Surgery
   - Postsurgical MR scan

4. Post-treatment
   - Multidisciplinary team conference
   - Oncological consultation
   - Radio- and/or chemotherapy

5. Follow up
   - Follow up
# Overview of an integrated pathways for cancer patients - cerebral cancer

<table>
<thead>
<tr>
<th>Clinical action</th>
<th>Logistic action</th>
<th>Information of the patient</th>
<th>Specialty</th>
<th>Registration &amp; Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre hospital</strong></td>
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<tr>
<td><strong>Decision:</strong> General practitioner finds <em>criterion based suspicion</em> of cancer</td>
<td>• Referral form is transmitted</td>
<td>• Exclusion of cancer</td>
<td>General Practitioner</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Additional information, if any, is transmitted to department of neurology</td>
<td>• Further planning of pathway</td>
<td></td>
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</tr>
<tr>
<td>Referral to start at integrated pathway</td>
<td>• Referral form received</td>
<td>• Call in: Investigation and examination and program</td>
<td>Neurologist</td>
<td>A: Referral form received</td>
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<tr>
<td>Investigation and examination program:</td>
<td>• Booking: Investigation and examination program</td>
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<tr>
<td>• Neurological examination</td>
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<tr>
<td>• Electrocardiogram (ECG)</td>
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<tr>
<td>• Blood tests</td>
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<tr>
<td>• MR scan</td>
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<tr>
<td>• X-ray of the chest</td>
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<tr>
<td>Decision:</td>
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<tr>
<td>• Referral to neurosurgeon</td>
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<tr>
<td>Booking: Pre investigation and examination in neurosurgical out-patients’ clinic</td>
<td>• Booking: Pre investigation and examination in neurosurgical out-patients’ clinic</td>
<td>• Determination of diagnosis</td>
<td>Multi-disciplinary team</td>
<td>C1: Diagnosis is confirmed and disproved</td>
</tr>
<tr>
<td>Booking: out-patients’ neurological treatment</td>
<td></td>
<td>• Further planning of pathway</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Call in: pre investigation and pre examination in neurological out-patients’ clinic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Call in: follow up in neurological out-patients’ clinic</td>
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</tbody>
</table>


Clinical Working Groups – Standard Timeframes

- Standard time for each phase of the pathway specified for the standard patient

  Ideal (i.e. if no capacity constraints) timeframes with regards to factual processing times

  - surgeons
  - anesthesiologist
  - oncologists
  - pathologists
  - radiologists
  - General Physician
Integrated pathways for cancer patients – fixed monitoring points

A : Referral received
B : Diagnostics start
C1: Diagnosis (dis-)confirmed
C2: Decision to treat
D : Informed consent
E1: Treatment start, organizational
E2: Treatment start, clinical
Successes and Why

- Appropriate political attention and commitment to enter into joint agreement was important
- Added funding essential
- Use of national clinical guidelines expected to increase quality of care (lower mortality)
- Increased focus on the Multi Disciplinary Team
- Increased focus on GP pre referral procedures
- Reduced waiting times for cancer patient for diagnosis and treatment – Monitoring essential
- However: Total pressure on health system makes it hard to keep up the good results
Lessons learned (1/2)

- Important from an early stage to include the development and integration of a registration and monitoring system of the integrated clinical pathways
- Awareness and common understanding of strengths and weaknesses, possibilities and limitation of using exiting registry is essential
- Cooperation with clinical quality databases should be prioritized from early on in the process
- Overall success criteria should be formulated early in the process
- Important to think patient involvement into the process
Lessons learned (2/2)

- Criteria for necessary patient load/population to justify a standard clinical pathway necessary
- Important to integrate the handling of co-morbidity into the integrated pathways from an early stage
- Important to clearly define when a pathway begins and ends
- Finding a balance between what is clinically optimal and capacity (staffing situation, equipment)
- Awareness of the priority discussion (across diseases and health sectors) the introduction of clinical pathways opens up for
Integrated Clinical Pathways for Cancer Patients

Questions and comments

Thank you

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