How not to miss a cancer: What can learning events (formerly SEA) tell us?

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Learning events (formerly SEA)

• For *individual and practice learning*
• Highlight areas for development *as individual and Practice*
• Identify gaps/weaknesses *in systems*
• Stimulate discussion and *reflection as a group/Network*
• Consider *particular types of presentation e.g emergency*
Factors influencing cancer survival and premature mortality
Updated NAEDI hypothesis

- Age / Sex / Ethnicity / Socio-economic status*

  - Difficulty accessing primary care
    - Low public awareness / Barriers to help-seeking / Negative beliefs about cancer*

  - Delays in primary care interval
    - Late presentation to a GP
    - Low uptake of cancer screening

  - Access to diagnostics and primary-secondary care interface factors*
    - Late presentation to hospital services / Emergency presentations*

  - Delays in secondary care interval

  - Treatment Access to treatment Other factors
    - More advanced disease at diagnosis
    - Poor survival rates / Premature mortality

Avoidable deaths

*New or changed since original hypothesis
Difficulty accessing primary care

Delays in primary care interval

Access to diagnostics and primary-secondary care interface factors*

Delays in secondary care interval

Treatment Access to treatment
Other factors
Age / Sex / Ethnicity / Socio-economic status*

Low public awareness / Barriers to help-seeking / Negative beliefs about cancer*

Late presentation to a GP / Low uptake of cancer screening

Late presentation to hospital services / Emergency presentations*

More advanced disease at diagnosis

Poor survival rates / Premature mortality

Avoidable deaths
Patient delay → Doctor delay → System delay

- System delay in primary health care
- Diagnostic delay in secondary health care
- Treatment delay

Delay in primary health care → Delay in secondary health care

- First symptom
- First contact with the GP
- Initiation of investigation of cancer-related symptoms
- Referral to hospital
- First in-hospital visit
- Diagnosis/referral to treatment
- Initiation of treatment
Learning Events (SEA) -Overview

• What happened and why?
• What was the impact on those involved (patient, carer, family, GP, practice)?
• How could things have been different?
• What can we learn from what happened?
• What needs to change?
Learning Events (SEA) – Key Points

• Title and date of the SEA discussion and subsequent events
• Date the event was discussed and the roles of those present
• A description of the event involving the GP(s) and other colleagues
• Reflections on the event in terms of knowledge, skills and performance
• Safety and quality
Learning Events (SEA)- Key Points

• Communication, partnership and teamwork
• Maintaining trust
• What changes have been agreed for me personally and the practice team, roles and agreed timelines for action(s)
• Changes carried out and their impact?
• How could things have been different?
• What can we learn from what happened?
• What needs to change?
Improving diagnosis of cancer

A TOOLKIT FOR GENERAL PRACTICE

E Mitchell, G Rubin & U Macleod

SIGNIFICANT EVENT AUDIT OF CANCER DIAGNOSIS

Cancer SEA Report Template

Diagnosis:
Date of diagnosis:
Age of patient at diagnosis:
Sex of patient:
Is the patient currently alive (Y/N):
If deceased, please give date of death:
Date of meeting where SEA discussed:

N.B.: Please DO NOT include the patient’s name in any narrative

1. WHAT HAPPENED?

Describe the process to diagnosis for this patient in detail, including dates of consultations, referral and diagnosis. Consider for instance:
- The initial presentation and presenting symptoms (including where it outwith primary care).
- The key consultation at which the diagnosis was made.
- Consultations in the year prior to diagnosis and referral (how often the patient had been seen by the practice and for what reasons).
- Whether she had been seen by the Out of Hours service, at A&E or in secondary care clinics.
- If there appears to be delay on the part of the patient in presenting with their symptoms.
1. WHAT HAPPENED?

Describe the process to diagnosis for this patient in detail, including dates of consultations, referral and diagnosis and the clinicians involved in that process. Consider for instance:

- The initial presentation and presenting symptoms (including where if outwith primary care).
- The key consultation at which the diagnosis was made.
- Consultations in the year prior to diagnosis and referral (how often the patient had been seen by the practice; for what reasons; the type of consultation held: telephone, in clinic etc; and who - GP1, GP2, Nurse 1 - saw them).
- Whether s/he had been seen by the Out of Hours service, at A&E, or in secondary care clinics.
- If there appears to be delay on the part of the patient in presenting with their symptoms.
- What the impact or potential impact of the event was.

June 2014- Attended GP surgery concerned about aching right groin lump. GP1 referred to Surgeon for possible hernia. Surgeon diagnosed a few ‘a few shotty lymph nodes but no hernia’, which he didn’t think warranted a scan.¹

June 2014- Normal mammogram.

Nov 2014- Negative bowel cancer screening test.²

Dec 2014- Consultation with GP1 for Hypertension review and statin discussion for raised cholesterol, QRisk 19%.³

Feb 2015- Consulted with GP1 for weeping area in umbilicus. Diagnosed as Pyogenic Granuloma and cauterized with silver nitrate.

11th April 2015 – Consultation with GP2 for aching in left lower leg 2d after long haul flight. No clinical signs of DVT and Wells score -1. Muscle strain thought more likely. Counselling for signs of DVT and advised to raise concerns at BP check the following week and if worse would need scan to exclude DVT.⁴
1. WHAT HAPPENED?

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- The initial presentation and presenting symptoms (including where if outwith primary care).
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- What the impact or potential impact of the event was.
Early Diagnosis of Cancer Significant Event Analysis Toolkit

Cancer SEAs prompt a GP to reflect on their diagnosis, and identify any potential improvements in practice systems using documentation or proactive safety netting.

At CCG or Health Body level, a cancer or quality improvement lead may find emerging themes and use local intelligence to address and manage issues. Cancer Significant Event Analysis (SEA) can support dialogue between the primary and secondary care interface and have benefits for clinicians, practices and patients.

Who is the toolkit for?

This cancer SEA toolkit and its resources support GPs, practice staff and commissioners in conducting high quality cancer SEAs with the aim of improving patient outcomes in the early diagnosis of cancer.

This toolkit may be used by CCG/Health Body or cancer leads, practice GP leads or any GP in practice delivering training and includes guidance for quality improvement across the primary secondary care interface.

If you are based in Wales or Scotland and interested in your practice taking part in the National Cancer Diagnosis Audit, please find out more and register here. Note that the audit in England has now closed.

- Training resources for cancer/commissioning leads
- Examples of SEAs with thematic analysis
- Resources and guidance for training practice staff
- Safety netting in primary care
- Additional cancer risk assessment tools
- Background and rationale
The **Cancer SEA GP guide** can be used by any GP wishing to undertake a Cancer SEA. The guide can also be issued as a 'hand-out' for GPs in your training events.

'Eary Diagnosis of Cancer - Quality Improvement Using Cancer Significant Event Analysis' training session resources

The following resources consist of a presentation that can be adapted for your training events, and resources to support this:

- Cancer SEA training slides with trainer notes
- Cancer SEA session - lesson plan
- Example cancer SEA session agenda

Resources for training sessions:

- Cancer SEA Template (2016)
- Instrument feedback tool
- Workshop brief
- Example SEA – Patient A handout
- Example SEA – Patient B handout
- Example SEA – Patient C handout
- Example evaluation form

Safety netting in primary care
The role of primary care in cancer diagnosis via emergency presentation: qualitative synthesis of significant event reports

E D Mitchell¹, G Rubin², L Merriman³ and U Macleod⁴
East Midlands Emergency presentation of lung cancer - SEA Thematic Analysis

- Common themes
- Divided into:
  - Tumour
  - Person
  - System
  - Diagnostics
  - Primary Care
  - Secondary Care
Tumour Themes

- No symptoms
- Anaemia
- Weight loss
- Neurological features:
  - ataxia, arm/facial weakness, seizure
- Breathlessness
- Pain
- Recurrent COPD exacerbations in the 6 months leading to diagnosis
Person Themes

- Nihilism and reluctance to “bother” G.P
- Seizure 4 months before
- Haemoptysis, saw pharmacist
- Stoic attitude rarely attend G.P
- Attribution of symptoms to another problem
- Attend AE
- Declining further investigations
  - Abnormal CXR
- Slow to represent after Investigations
- Frail with comorbidity
Community Themes

- Understanding of NICE referral guideline criteria
- What to do if CXR normal?
- Symptoms not always respiratory and meet referral criteria
- Pathway redesign
The Practices

Eastgate Medical Group

Church View Surgery

Orchard 2000 Medical Centre

New Hall Surgery
Oakfield Court Cottingham Road
Presenting symptoms

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loose stools</td>
<td>35</td>
</tr>
<tr>
<td>Abdo pain</td>
<td>30</td>
</tr>
<tr>
<td>PR bleeding</td>
<td>25</td>
</tr>
<tr>
<td>Wt Loss</td>
<td>15</td>
</tr>
<tr>
<td>Anaemia</td>
<td>10</td>
</tr>
<tr>
<td>Poor appetite</td>
<td>7</td>
</tr>
<tr>
<td>Constipation</td>
<td>6</td>
</tr>
<tr>
<td>Tenesmus</td>
<td>5</td>
</tr>
<tr>
<td>Tiredness</td>
<td>5</td>
</tr>
<tr>
<td>Back pain</td>
<td>4</td>
</tr>
<tr>
<td>Incontinence</td>
<td>4</td>
</tr>
<tr>
<td>Abdominal Mass</td>
<td>4</td>
</tr>
<tr>
<td>Anal pain</td>
<td>3</td>
</tr>
<tr>
<td>Nausea</td>
<td>3</td>
</tr>
<tr>
<td>Vomiting</td>
<td>3</td>
</tr>
<tr>
<td>Epigastric pain</td>
<td>2</td>
</tr>
<tr>
<td>Blue discoulouration in fingers</td>
<td>2</td>
</tr>
<tr>
<td>Cough</td>
<td>1</td>
</tr>
<tr>
<td>Falls</td>
<td>1</td>
</tr>
<tr>
<td>Cold hands</td>
<td>1</td>
</tr>
<tr>
<td>Paraesthesia</td>
<td>1</td>
</tr>
<tr>
<td>Generally unwell</td>
<td>1</td>
</tr>
</tbody>
</table>

Significant Event Analysis of Lung and Colorectal Cancer in Hull (and safety netting!)
A pie chart showing the referrals of patients diagnosed with bowel cancer.

Significant Event Analysis of Lung and Colorectal Cancer in Hull (and safety netting!)
<table>
<thead>
<tr>
<th>Learning point</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety netting is important when managing patients with red flag symptoms, arranging investigations and sending referrals</td>
<td>39</td>
</tr>
<tr>
<td>Know the NICE guidelines on the recognition and referral of cancer and the red flags</td>
<td>26</td>
</tr>
<tr>
<td>Have a robust system for dealing with the results of investigations</td>
<td>17</td>
</tr>
<tr>
<td>A careful examination should be undertaken and documented in patients presenting with abdominal symptoms</td>
<td>15</td>
</tr>
<tr>
<td>Patients presenting multiple times with similar symptoms should be monitored</td>
<td>6</td>
</tr>
<tr>
<td>Have a low threshold for investigating patients who present infrequently</td>
<td>6</td>
</tr>
<tr>
<td>Patients with significant comorbidities, may present late or have new symptoms labelled as part of their existing disease</td>
<td>6</td>
</tr>
<tr>
<td>Investigate patients with iron deficiency anaemia and know the local referral pathway</td>
<td>4</td>
</tr>
<tr>
<td>Good communication with secondary care can improve diagnosis times</td>
<td>3</td>
</tr>
<tr>
<td>Do not be reassured by normal blood results when a diagnosis of colorectal cancer is suspected</td>
<td>3</td>
</tr>
<tr>
<td>Ensure patient contact details are correct when organising investigations and referrals</td>
<td>2</td>
</tr>
</tbody>
</table>
Presenting complaint

<table>
<thead>
<tr>
<th>Complaint</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cough</td>
<td>90</td>
</tr>
<tr>
<td>SOB</td>
<td>50</td>
</tr>
<tr>
<td>Chest pain</td>
<td>40</td>
</tr>
<tr>
<td>Increasing sputum</td>
<td>30</td>
</tr>
<tr>
<td>Weight loss</td>
<td>20</td>
</tr>
<tr>
<td>Loss of appetite</td>
<td>10</td>
</tr>
<tr>
<td>Wheeze</td>
<td>5</td>
</tr>
<tr>
<td>Haemoptysis</td>
<td>3</td>
</tr>
<tr>
<td>Generally unwell</td>
<td>2</td>
</tr>
<tr>
<td>Tiredness</td>
<td>1</td>
</tr>
<tr>
<td>Night sweats</td>
<td>1</td>
</tr>
<tr>
<td>Headache</td>
<td>1</td>
</tr>
<tr>
<td>Dizziness</td>
<td>1</td>
</tr>
<tr>
<td>Hoarse voice</td>
<td>1</td>
</tr>
<tr>
<td>Abnormal bloods</td>
<td>1</td>
</tr>
</tbody>
</table>

Significant Event Analysis of Lung and Colorectal Cancer in Hull (and safety netting!)
Key Lung Cancer Learning Point

• 37 (31%) patients had a first CXR which was negative for lung cancer.
• A negative CXR significantly increased median time to diagnosis with a fivefold increase in time to referral.
• A detailed review of cases showed that negative CXRs seemed to divert the GPs attention away from the possibility of lung cancer with multiple trials of treatments, routine referrals and referrals to other specialities being made.
<table>
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<td>41</td>
</tr>
<tr>
<td>arranging investigations and sending referrals</td>
<td></td>
</tr>
<tr>
<td>Have a low threshold for requesting chest x-rays, particularly in current</td>
<td>34</td>
</tr>
<tr>
<td>or ex-smokers</td>
<td></td>
</tr>
<tr>
<td>Know the NICE guidelines on the recognition and referral of cancer and the</td>
<td>22</td>
</tr>
<tr>
<td>red flags</td>
<td></td>
</tr>
<tr>
<td>Patients presenting multiple times with similar symptoms should be monitored</td>
<td>19</td>
</tr>
<tr>
<td>Have a robust system for dealing with the results of investigations</td>
<td>17</td>
</tr>
<tr>
<td>Be aware that chest x-rays can be negative even in patients with cancer</td>
<td>14</td>
</tr>
<tr>
<td>Patients presenting to A&amp;E or OOH should be monitored and reviewed as needed</td>
<td>11</td>
</tr>
<tr>
<td>Have a low threshold for investigating patients who present infrequently</td>
<td>9</td>
</tr>
<tr>
<td>A careful examination should be undertaken and documented in patients presenting</td>
<td>7</td>
</tr>
<tr>
<td>with chest signs</td>
<td></td>
</tr>
<tr>
<td>Have a system in place to monitor investigations that have been requested and</td>
<td>6</td>
</tr>
<tr>
<td>to chase up patients who do not attend</td>
<td></td>
</tr>
<tr>
<td>Good communication with secondary care can improve diagnosis times</td>
<td>6</td>
</tr>
<tr>
<td>Document and record smoking status in patients presenting with chest symptoms</td>
<td>3</td>
</tr>
<tr>
<td>Patients with significant comorbidities, may present late or have new</td>
<td>2</td>
</tr>
<tr>
<td>symptoms labelled as part of their existing disease</td>
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<td>2</td>
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<tr>
<td>referrals</td>
<td></td>
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NCDA 2014 (ENGLAND)

- Most patients (72%) first presented at the GP surgery (or had a home visit)
- 74% of patients were referred to a specialist after only one or two consultations; approximately 52% were referred through the Two Week Wait route
- Primary care led investigations before referral were used in 45% of all patients
- Time from referral to diagnosis exceeded 28 days in 54% of patients
- For 44% of patients, there was evidence in the clinical record that safety netting had been used
- For one in five patients the GP considered there to have been an avoidable delay in the patient receiving their diagnosis

Swann et al. BJGP 2018: https://doi.org/10.3399/bjgp17X694169
NCDA (England) 2014

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Resource

- Behind the headlines
"Cervical cancer could be eliminated in most countries by 2100," reports The Guardian.

The headline is prompted by a new study that predicted what might happen to cervical cancer over the next 50 years.

Most cases of cervical cancer are caused by the human papillomavirus (HPV), and there are effective vaccines that can protect people from contracting HPV.

It's hoped that the number of cases of cervical cancer will be greatly reduced in countries where the vaccine is widely used.

But vaccination rates are much lower in poorer parts of the world.

Also, while vaccination protects young people who have never come into contact with HPV, it does not treat established infections.