Referral routes and time to diagnosis of haematological malignancies

Debra Howell
Epidemiology and Cancer Statistics Group
(debra.howell@york.ac.uk)
Challenges to early diagnosis

• Speed and severity of onset and progression vary by sub-type

• Symptom characteristics
  • No single symptom indicative of blood cancer
  • Can occur at any site
  • Similar to benign, self limiting diseases
  • Fatigue and pain are most common across all disease groups
  • May be non-acute, painless, intermittent, vague

• Help seeking
  • Multiple episodes are often required before referral

• Referral
  • Few 2WW referrals; frequent emergency presentations
  • Cancer not suspected at referral
Haematological Malignancy Research Network (www.HMRN.org)

- Specialist population-based registry – catchment population of ~4 million
- Collaborative with NHS
- Ascertains all patients newly diagnosed with a haematological malignancy - 2200 patients/year
- Similar socio-demographic structure to UK
  - Age, sex, affluence/deprivation, urban/rural status
Using HMRN infrastructure to examine pathways to diagnosis: NAEDI study
NAEDI: Referral pathways and time to diagnosis: Patients and data collection

- Included all patients diagnosed 1\textsuperscript{st} July 2012 – 31\textsuperscript{st} December 2013
- Data collection from hospital records
- All referrals leading to diagnosis:
  - Date referral made
  - Type of referral (urgent/2WW, emergency (via A&E), GP routine, consultant)
  - Speciality referred from (GP, hospital speciality, self referral)
  - Speciality referred to/presented at (hospital speciality or A&E)
  - Date first seen by team referred to

- Date of diagnosis (from report authorisation date)
HMRN patients diagnosed during study period (01/07/12 - 31/12/13); and those with referral data

<table>
<thead>
<tr>
<th></th>
<th>Total diagnosed N</th>
<th>Total with referral data N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total diagnosed</td>
<td>3772</td>
<td>3382 (89.7)</td>
</tr>
<tr>
<td>Total lymphoma/myeloma</td>
<td>1556</td>
<td>1412 (90.7)</td>
</tr>
<tr>
<td>Lymphoma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Non-Hodgkin</td>
<td>1126</td>
<td>1020 (90.6)</td>
</tr>
<tr>
<td>- Hodgkin</td>
<td>979</td>
<td>884 (90.3)</td>
</tr>
<tr>
<td>Myeloma</td>
<td>430</td>
<td>392 (91.2)</td>
</tr>
</tbody>
</table>
Overview of all first referral specialities

**Haematology**; **A&E** (emergency/acute assessment units); **ENT** head and neck, maxillo-facial, cranio-facial); **Respiratory medicine**; **Surgery** (breast, cardiothoracic, colorectal, general surgery, gastro-intestinal, plastic, neuro); **Other specialities** (allergy, cardiology, coronary care unit, dentist, dermatology, diabetes, elderly medicine, endocrine, endoscopy, gastroenterology, general medicine, gynaecology, gynaec-oncology, hepatology, high dependency unit, immunology, infectious diseases, intensive care unit, laboratory results (haematology), medical-oncology, midwifery, neurology, neuro-oncology, obstetrics, ophthalmology, optician, orthopaedic, pathology, physiotherapy, psychiatry, psycho-oncology, radiology, rehabilitation, rheumatology, sarcoma, spinal, stroke, urology).
Speciality of first referral: Lymphoma and myeloma
Referral type: Lymphoma and myeloma

- Hodgkin lymphoma
- Non-Hodgkin lymphoma
- Myeloma

Bar chart showing referral types:
- 2WW/Urgent
- Consultant
- Emergency presentation
- Routine
- Unknown
Time (median, IQR) from first referral to diagnosis

- Lymphocyte predominant nodular Hodgkin lymphoma
- Extranodal marginal zone lymphoma
- Classical Hodgkin lymphoma
- Systemic marginal zone lymphoma
- Follicular lymphoma
- Diffuse large B-cell lymphoma
- T-cell lymphoma
- Myeloma
- Burkitt lymphoma
- Mantle cell lymphoma
Time (median, IQR) from first referral to diagnosis

- A&E
- Haematology
- Respiratory medicine
- ENT
- Surgery
- Other speciality

- Hodgkin Lymphoma
- Non-Hodgkin Lymphoma
- Myeloma
Acknowledgements:

• HMRN is funded by Leukaemia and Lymphoma Research

• ‘Lymphoma and myeloma: understanding the patient pathway and promoting early diagnosis’ is funded by the National Awareness and Early Diagnosis Initiative (CRUK/Department of Health/NHS England/Public Health England)
References:


© www.hmrn.org