Referral routes and time to diagnosis of haematological malignancies

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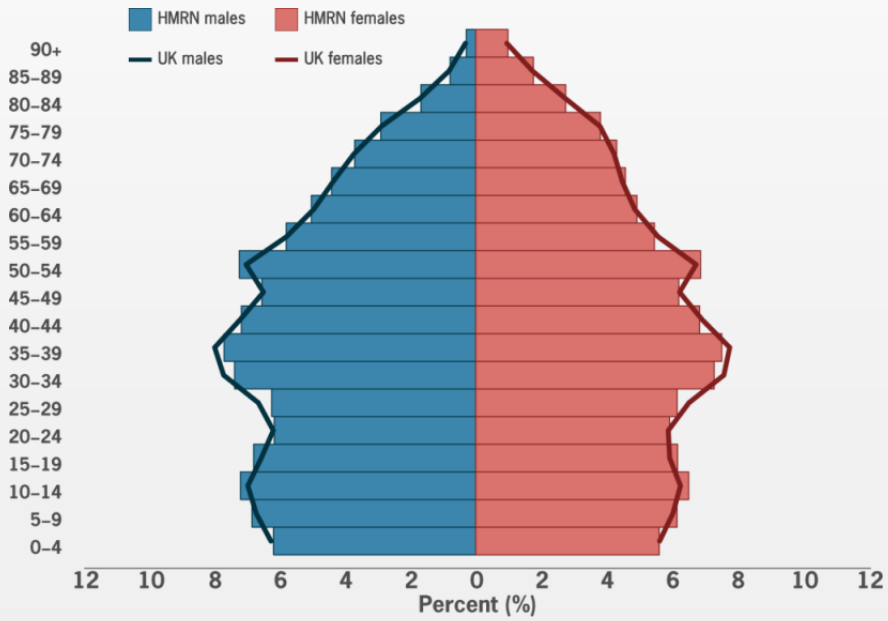
Challenges to early diagnosis

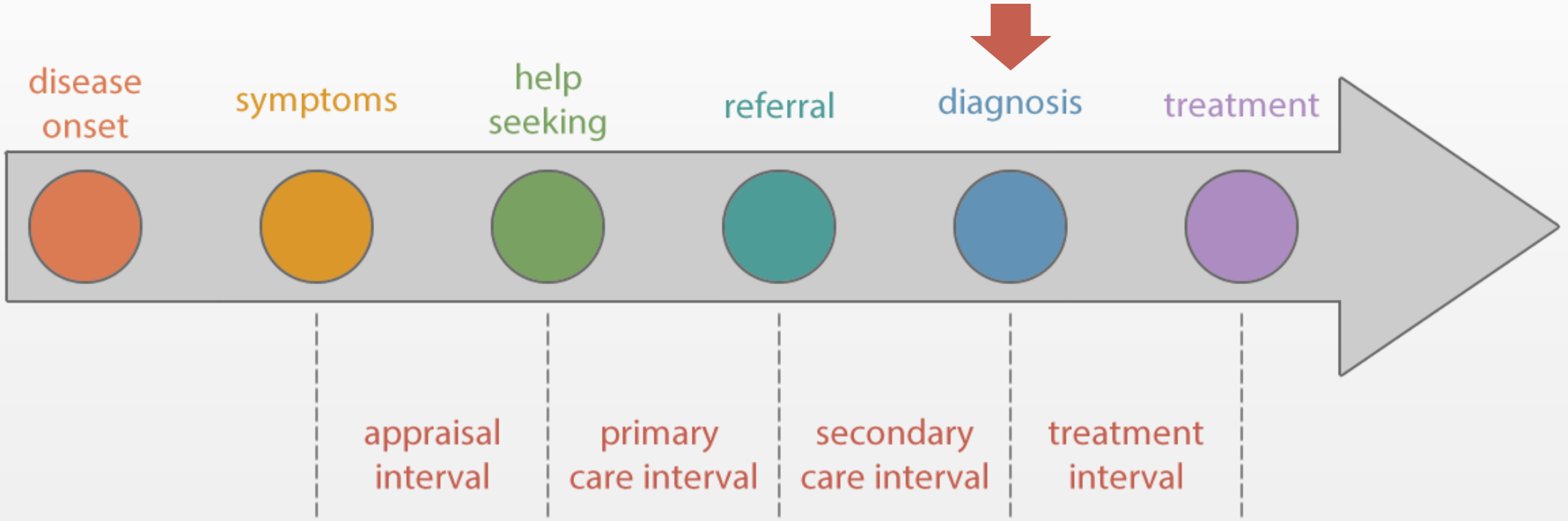
- Speed and severity of onset and progression vary by sub-type
- Symptom characteristics
  - No single symptom indicative of blood cancer
  - Can occur at any site
  - Similar to benign, self limiting diseases
  - Fatigue and pain are most common across all disease groups
  - May be non-acute, painless, 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 1st July 2012 – 31st 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)

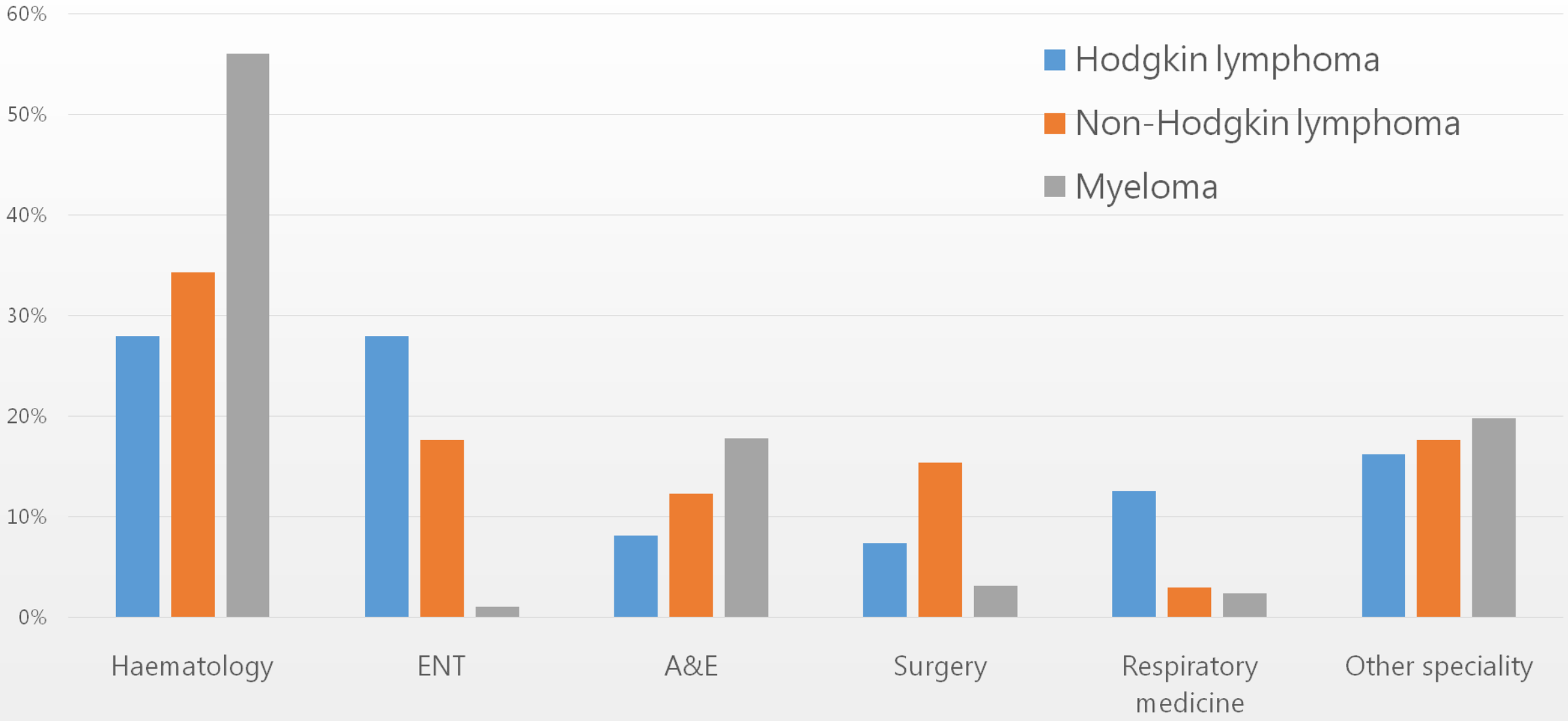
HMRN patients diagnosed during study period (01/07/12 - 31/12/13); and those with referral data

	Total diagnosed N	Total with referral data N (%)
Total diagnosed	3772	3382 (89.7)
Total lymphoma/myeloma	1556	1412 (90.7)
Lymphoma	1126	1020 (90.6)
- Non-Hodgkin	979	884 (90.3)
- Hodgkin	147	136 (92.5)
Myeloma	430	392 (91.2)

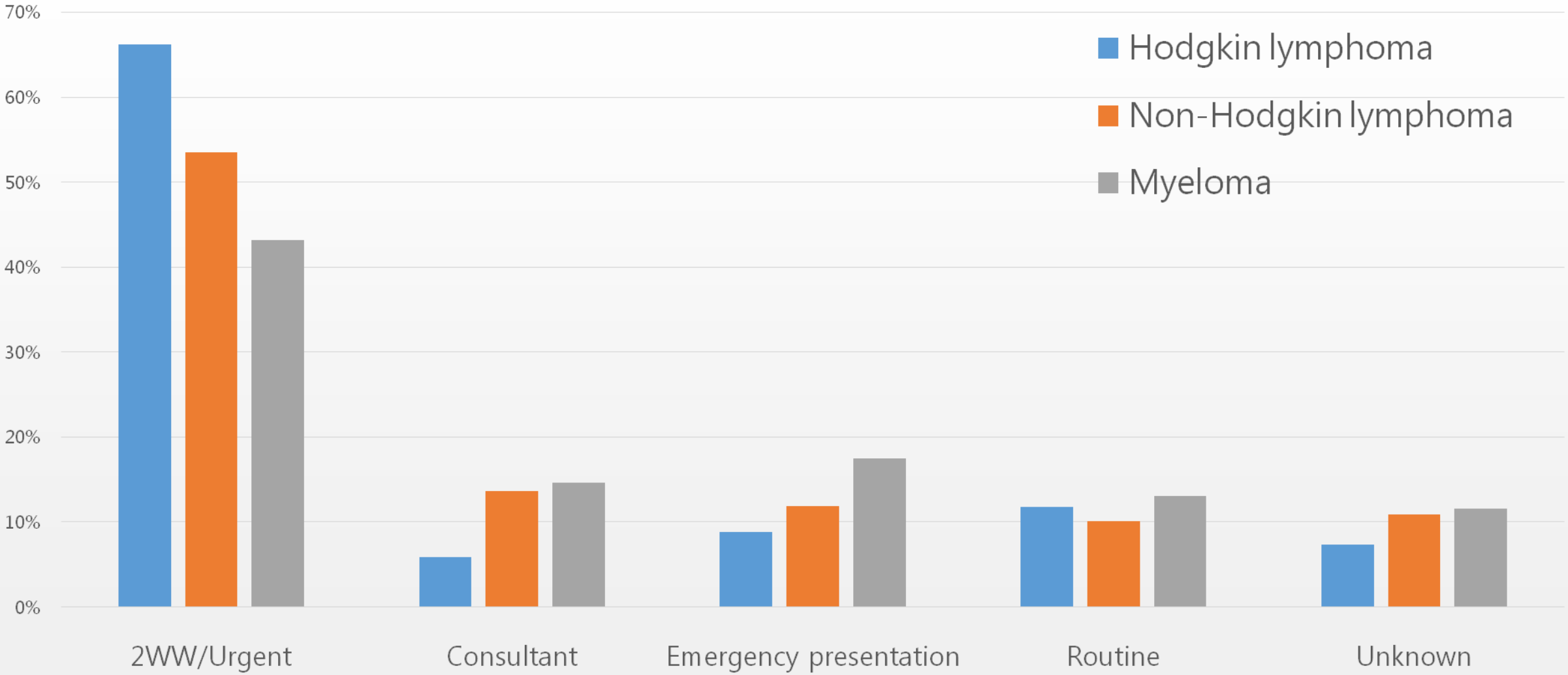
Overview of all first referral specialities

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, gynae-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).

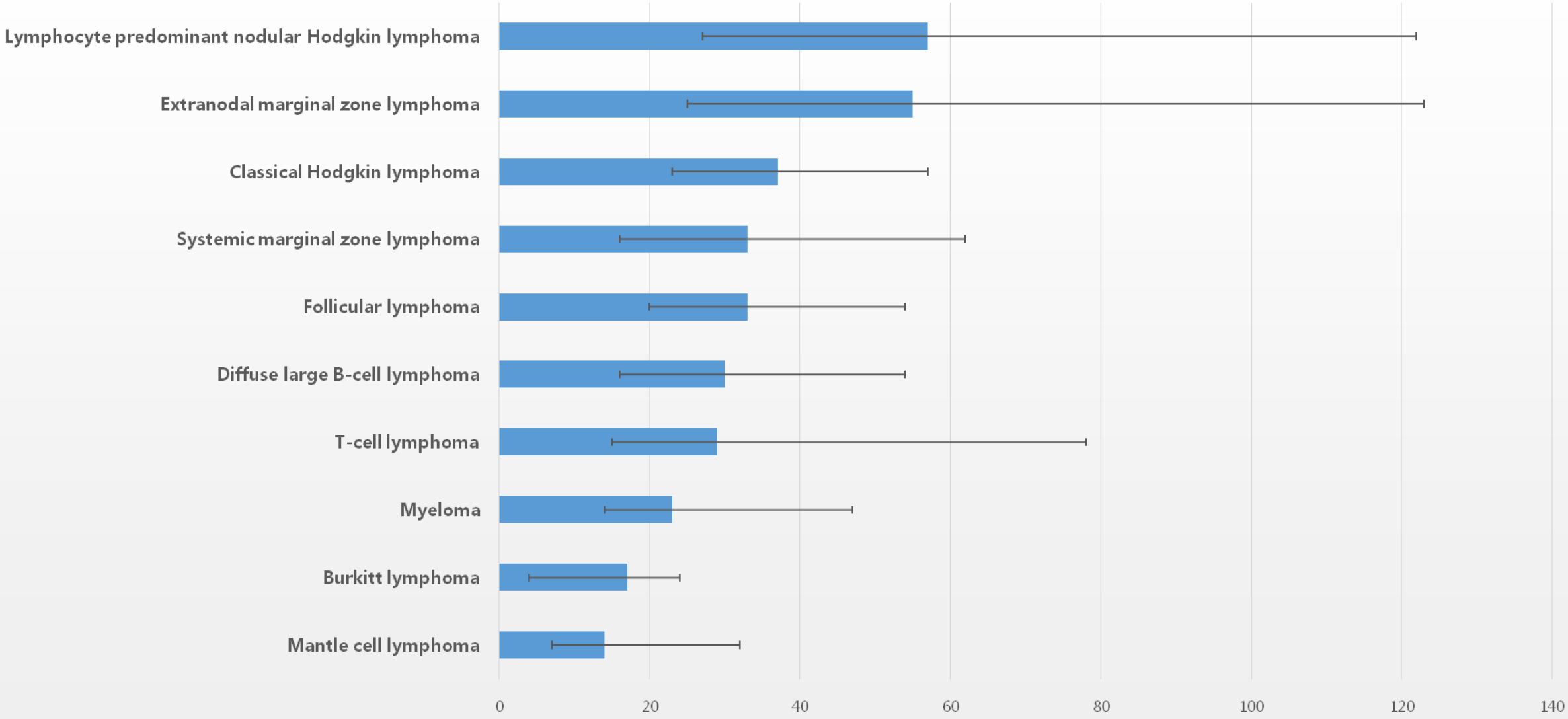
Speciality of first referral: Lymphoma and myeloma



Referral type: Lymphoma and myeloma



Time (median, IQR) from first referral to diagnosis



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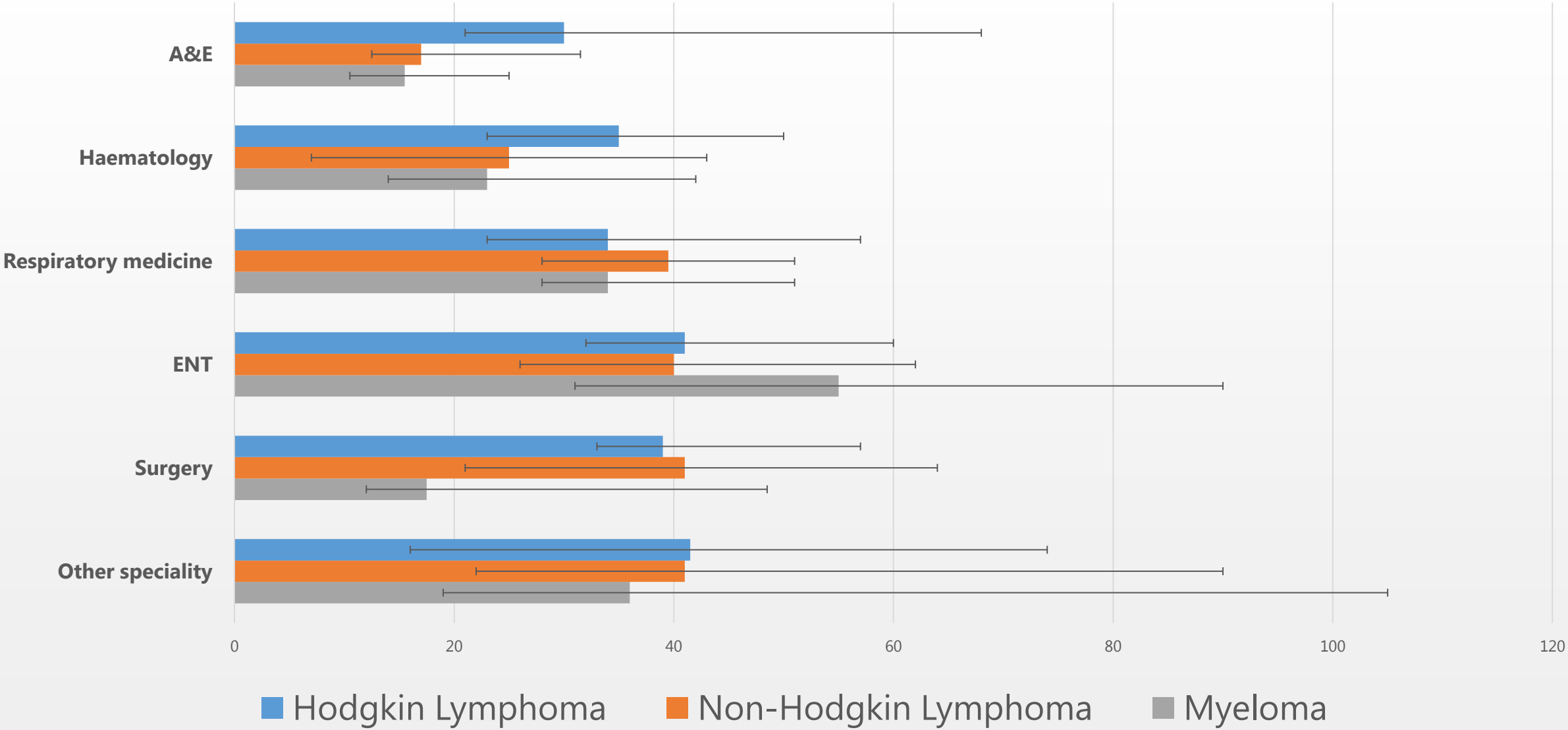

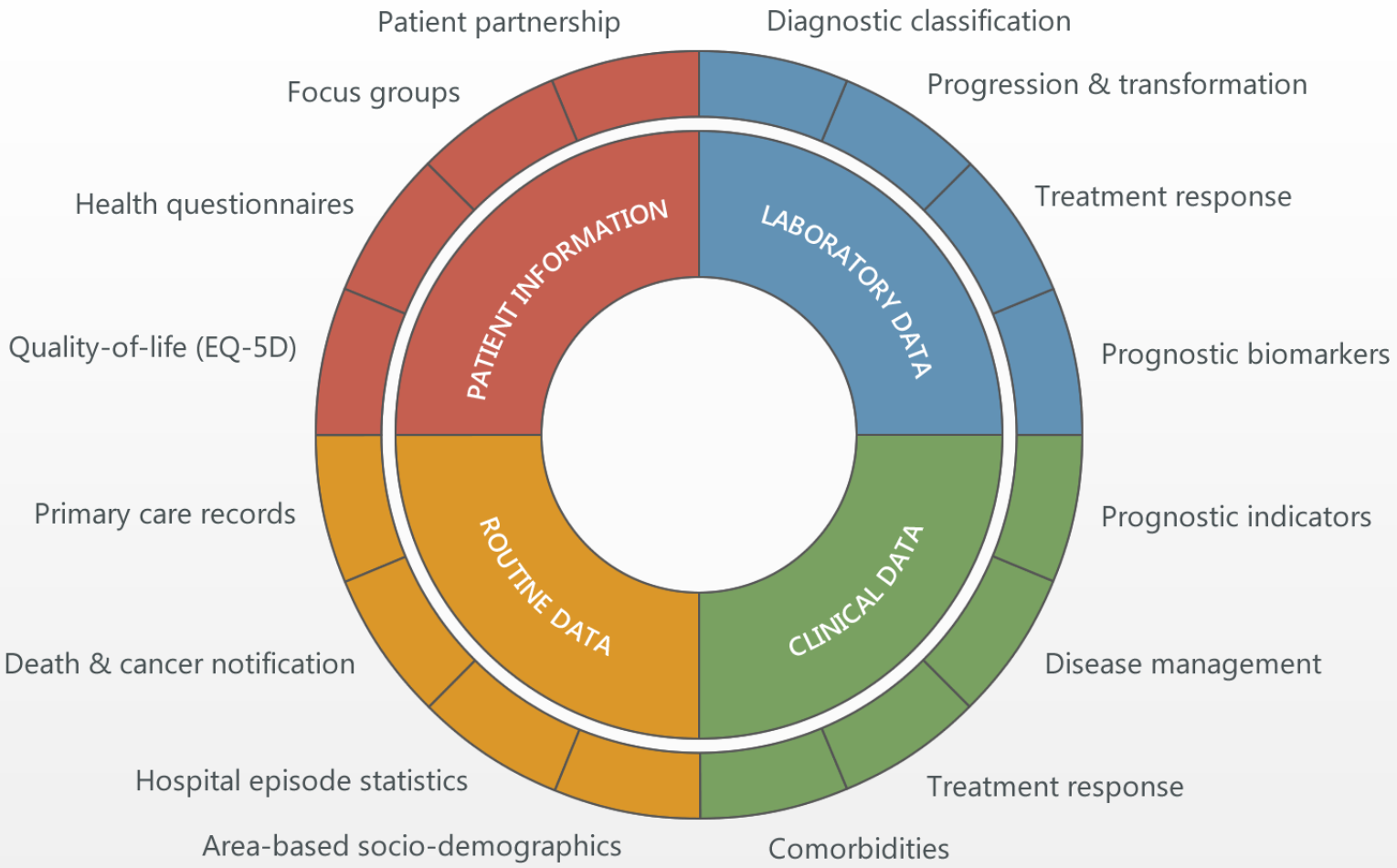

Aetiology

Routes to diagnosis

Clinical audits

Survival/prognostic modelling

Descriptive patterns

Health economics

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)

LEUKAEMIA & LYMPHOMA RESEARCH

Beating Blood Cancers

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