Public Health England

Clinical Service Quality Measures – Colorectal Cancer

Eva Morris
Professor of Cancer Epidemiology, University of Leeds

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Background

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National Action Plan commitment

"**Overarching clinical indicators** - For ten new clinical areas (including **cancer, children's services, mental health and stroke**), data will be made available **to tell the public how well services are performing and meeting their needs**."

PM speech at Open Government Partnership

"The focus here in the UK will be quite a lot on healthcare, education, publishing information so that consumers, citizens, patients and parents can make good choices. **I think it's an enormous tool for improving our public services**."

NHS England Mandate (1)

"3.3 An objective for NHS England is to **shine a light on variation** and unacceptable practice, to inspire and help people to learn from the best. We want a revolution in transparency – so that the **NHS leads the world in the availability of information about the quality of services**.

NHS England mandate (2)

"Domain 1 (point 1.4) - NHS England's objective is to make significant progress in reducing unjustified variation between hospitals in avoidable deaths, so that standards in all hospitals are closer to those of the best. **The NHS should measure and publish outcome data for all major services by 2015, broken down by …those teams and organisations providing care**…"

Five Year Forward View

"To reduce variations in where patients receive care, we will measure and publish **meaningful and comparable measurements** for all major pathways of care for every provider – including community, mental and primary care – by the end of the next Parliament."

"As national bodies we can do more by measuring what matters, requiring comprehensive **transparency** of performance data and ensuring this data increasingly informs payment mechanisms and commissioning decisions."

Aims of the programme

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- Provide better, more accessible information **for patients;** enabling them to see how well services are performing and meeting their needs.
- Provide **patients and commissioners** with further insight into outcomes.
- Drive **service** improvement and reduction in unwarranted variation.
- Allow **NHS staff** to see how well their services are performing within the context of their peers; comparison and learning opportunity.

- Develop a Clinical Service Quality Measure (CSQM)

Publication of CSQMs

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Publication of CSQMs

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My NHS - NHS Choices

https://www.nhs.uk/Service-Search/performance/results?ResultsViewId=1076&MetricGroupId=509&SortingMetricId=9324&SortDirection=NotSet&Radius=25&Page

Apps | UoL webmail | TCC RMS - Trainees C | Outlook | Hotmail

Sort by distance	Overall Stroke Care Rating (Adjusted)	Number of patients admitted in one quarter	Change in performance from previous quarter	Team Key Indicator Level	Proportion of stroke cases included in SSNAP (Case ascertainment)	Completeness and timeliness of data (Audit compliance)	Name of stroke service
Leeds General Infirmary Great George Street, Leeds, West Yorkshire, LS1 3EX Tel: 0113 243 2799 **0.1 miles away** Add to shortlist	D	244	No change	C	A	B	Leeds General Infirmary
Pinderfields Hospital Pinderfields Hospital, Aberford Road, Wakefield, West Yorkshire, WF1 4DG Tel: 0844 8118110 **7.9 miles away** Add to shortlist	D	209	No change	D	A	A	Pinderfields Hospital
Bradford Royal Infirmary Duckworth Lane, Bradford, West Yorkshire, BD9 6RJ Tel: 01274 542200	C	115	Improvement	C	A	B	Bradford Royal Infirmary

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17/04/2016

Colorectal quality measures

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- Numerous indicators of care exist
  - Surgeon-level reporting
  - National Bowel Cancer Audit
  - Cancer Quality Performance Indicators
  - Service Profiles
  - Clinical Headline Indicators
  - Cancer waiting times
  - Cancer patient experience survey
- With CSQMs we aimed to ensure measures are consistent and as robust as possible
  - Measured at a population level
  - Adjusted for all relevant case mix
  - Measures something clinically important and meaningful
- Patient event in December 2015 to prioritise indicators

Data

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- National Cancer Registration Dataset
  - Cancer Outcomes Services Dataset (COSD)
  - National Bowel Cancer Audit Dataset (NBOCA)
- Hospital Episode Statistics (HES)
- National Radiotherapy Dataset (RTDS)
- Systemic Anticancer Therapy Dataset (SACT)

- Indicators will include information on all patients:
  - Diagnosed with colorectal cancer (ICD-10 codes C18 C19 C20)
  - Diagnosed between 2012 and 2014 (followed up until 31/12/2015)

  Or
  - Already published and generated with robust/comparable data and methods

Indicators

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1. Management and process

- Cancer waiting times (31 and 62 day targets)
- Post-colonoscopy colorectal cancer rates
- Major resection rate
- Length of stay
- Abdominoperineal resection rates in rectal cancer
- Rates of resection of liver metastases

2. Outcomes

- Thirty-day post-operative mortality rates
- Permanent stoma rates at 18 months

3. *Experience*

- *Cancer patient experience survey/Patient reported outcomes*

Methods

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- 149 multidisciplinary teams (MDTs) treating colorectal cancer patients across the English NHS
- Aiming to develop a composite score for each team for process/management, outcome and experience
- All patients in the study cohort will be allocated to a MDT based on where they had their surgical treatment or the hospital they attended closest to diagnosis
- Outcomes calculated for each team's cohort of patients and combined to form CSQM

Methods

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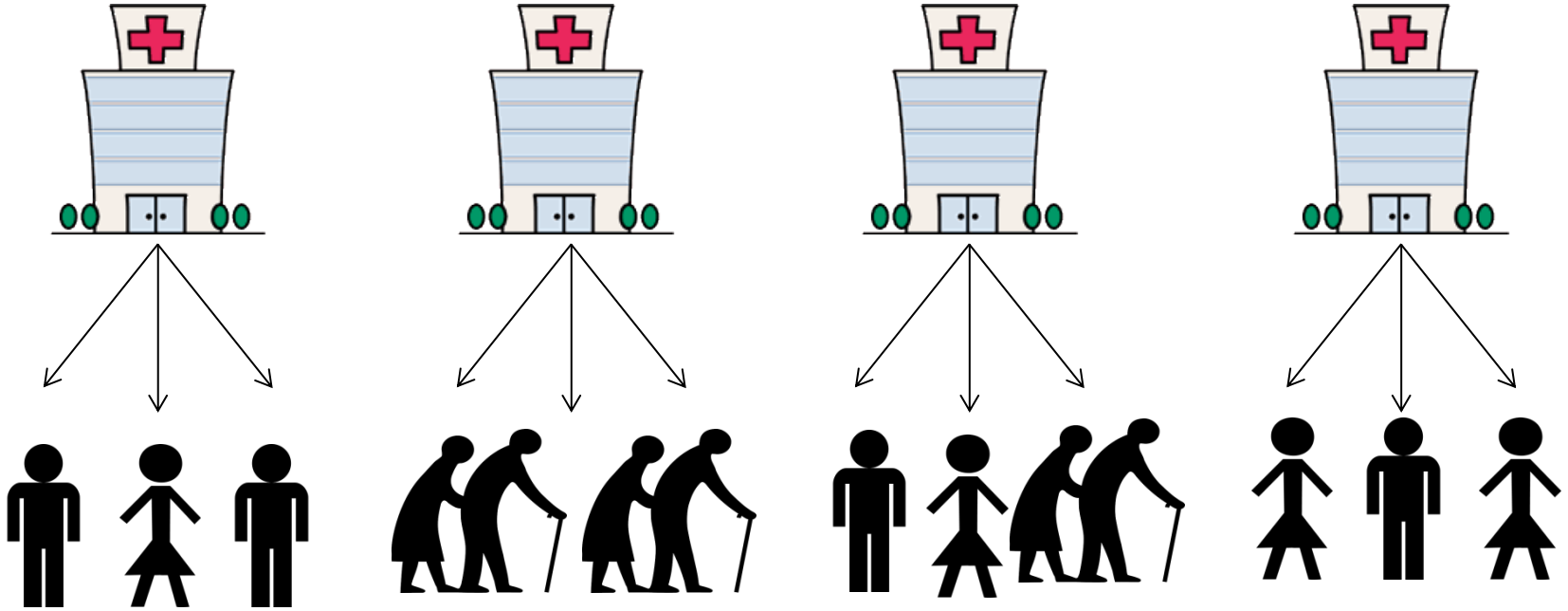
- The characteristics of the populations treated by each colorectal cancer team are potentially very different so, where possible, multi-level models will be used

- Seek to fit models with a two-level multilevel structure (random effects), where patients are nested within NHS trust.



Risk adjustment

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- Risk varies across the population
- Where possible outcomes adjusted for case mix (where possible)
  - Age
  - Dukes' stage
  - IMD
  - Primary procedure
  - Admission method/operation type (where appropriate)
  - Year of diagnosis
  - Charlson comorbidity score
  - Cancer site (where appropriate)

Funnel plots

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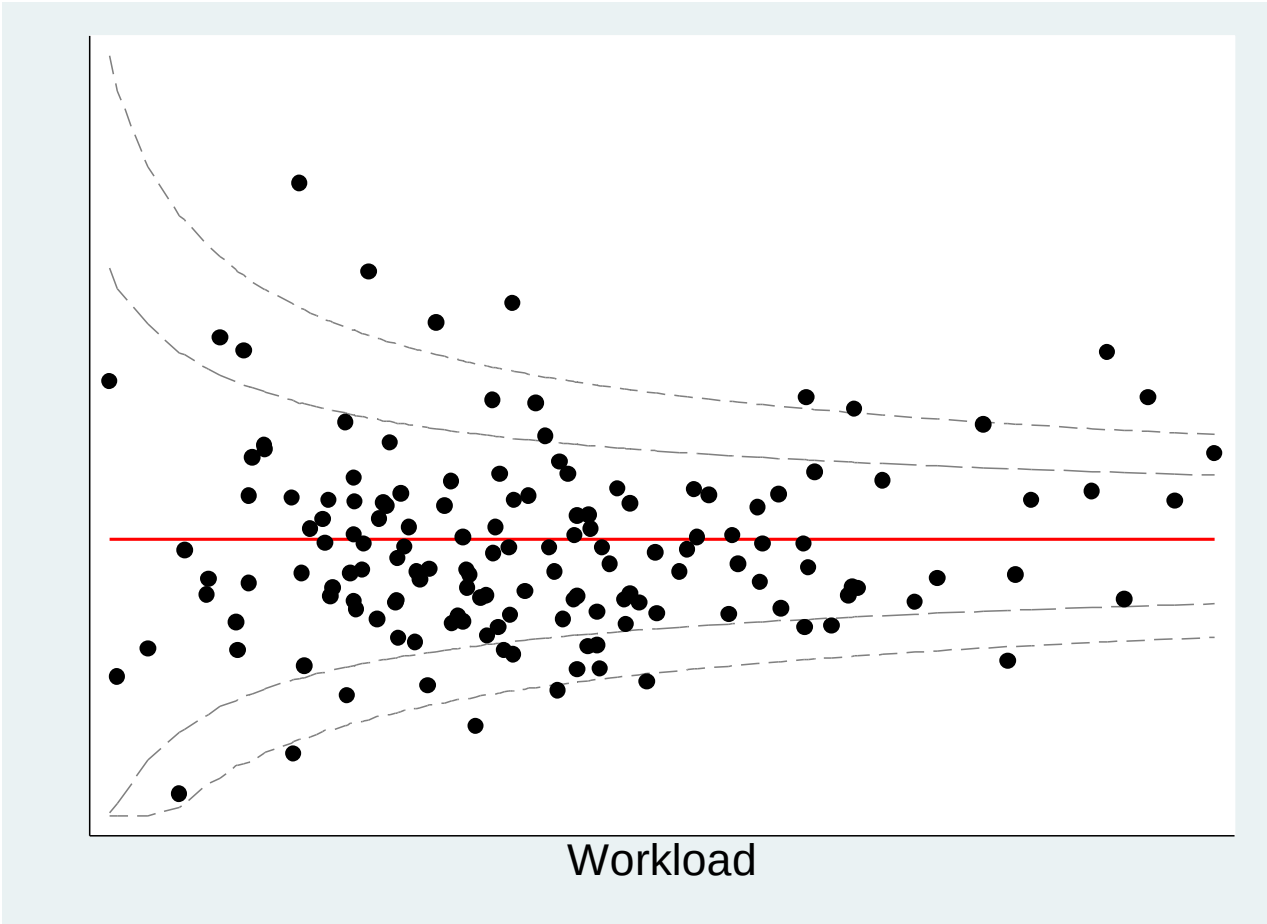

Creating composite indicators

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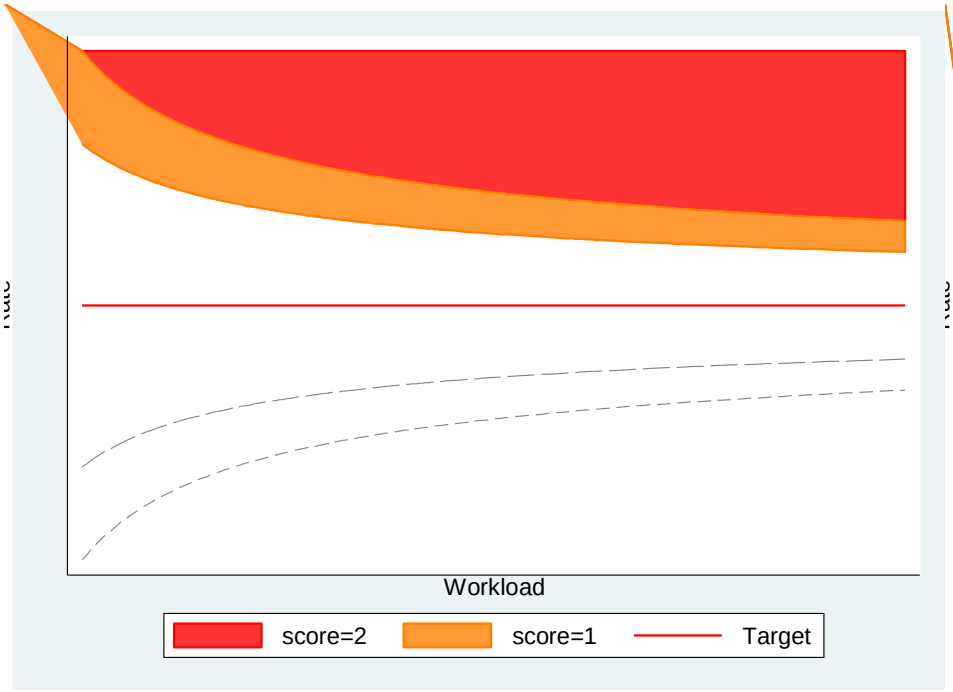

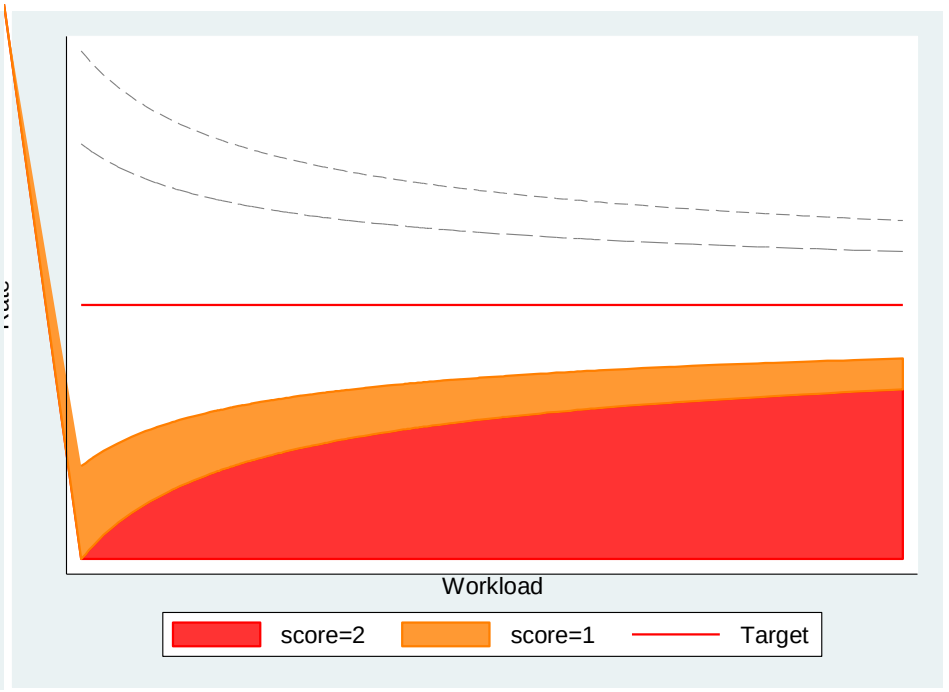

Creating composite indicators

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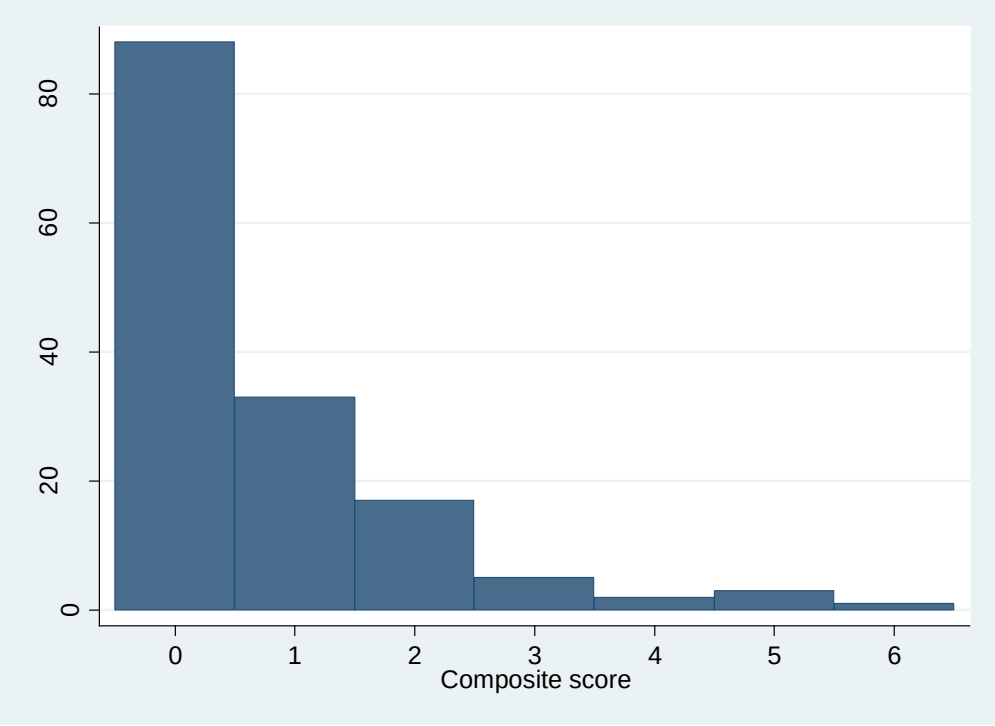

Odds of major resection

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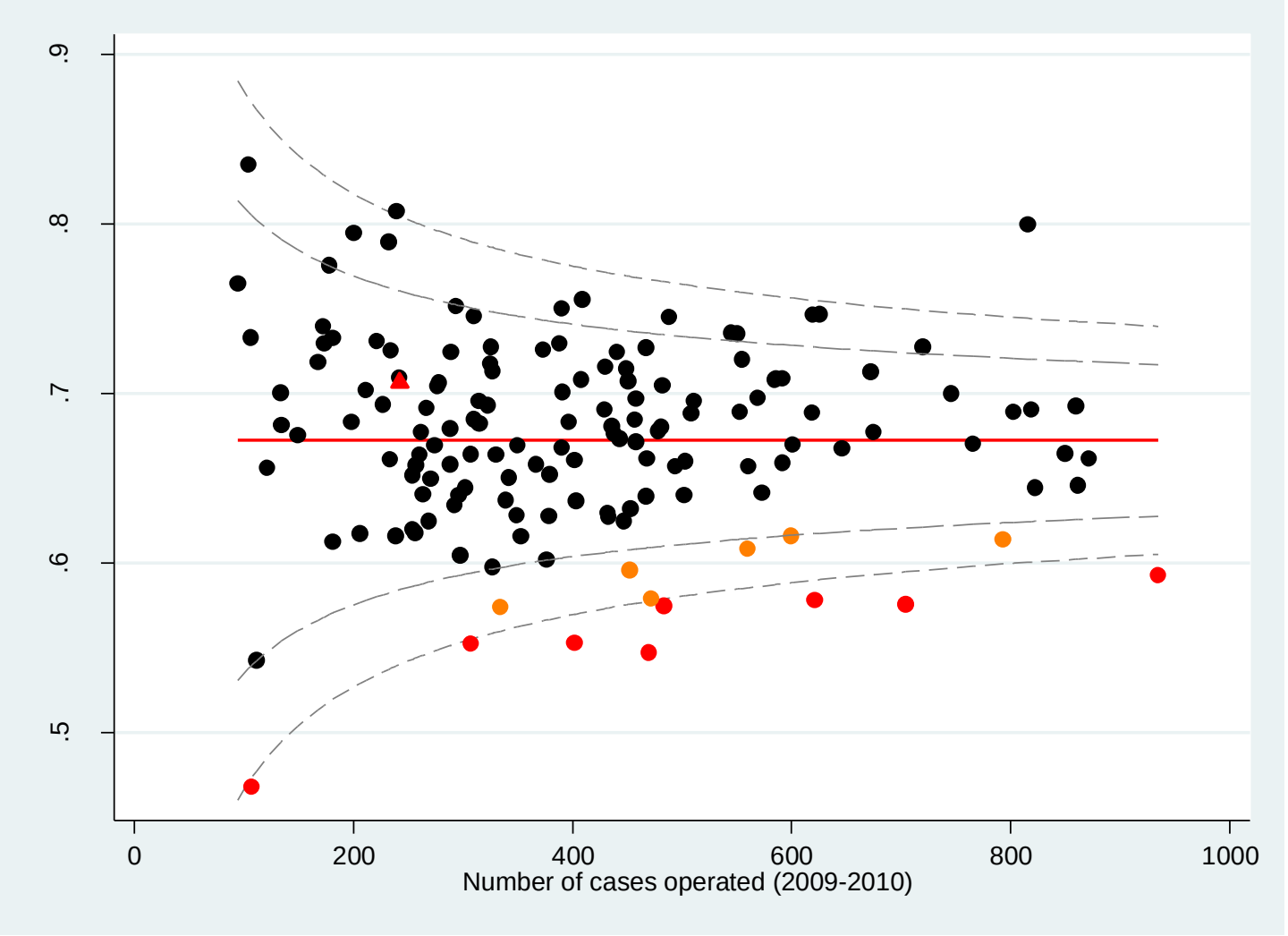

Odds of death within 30-days of surgery

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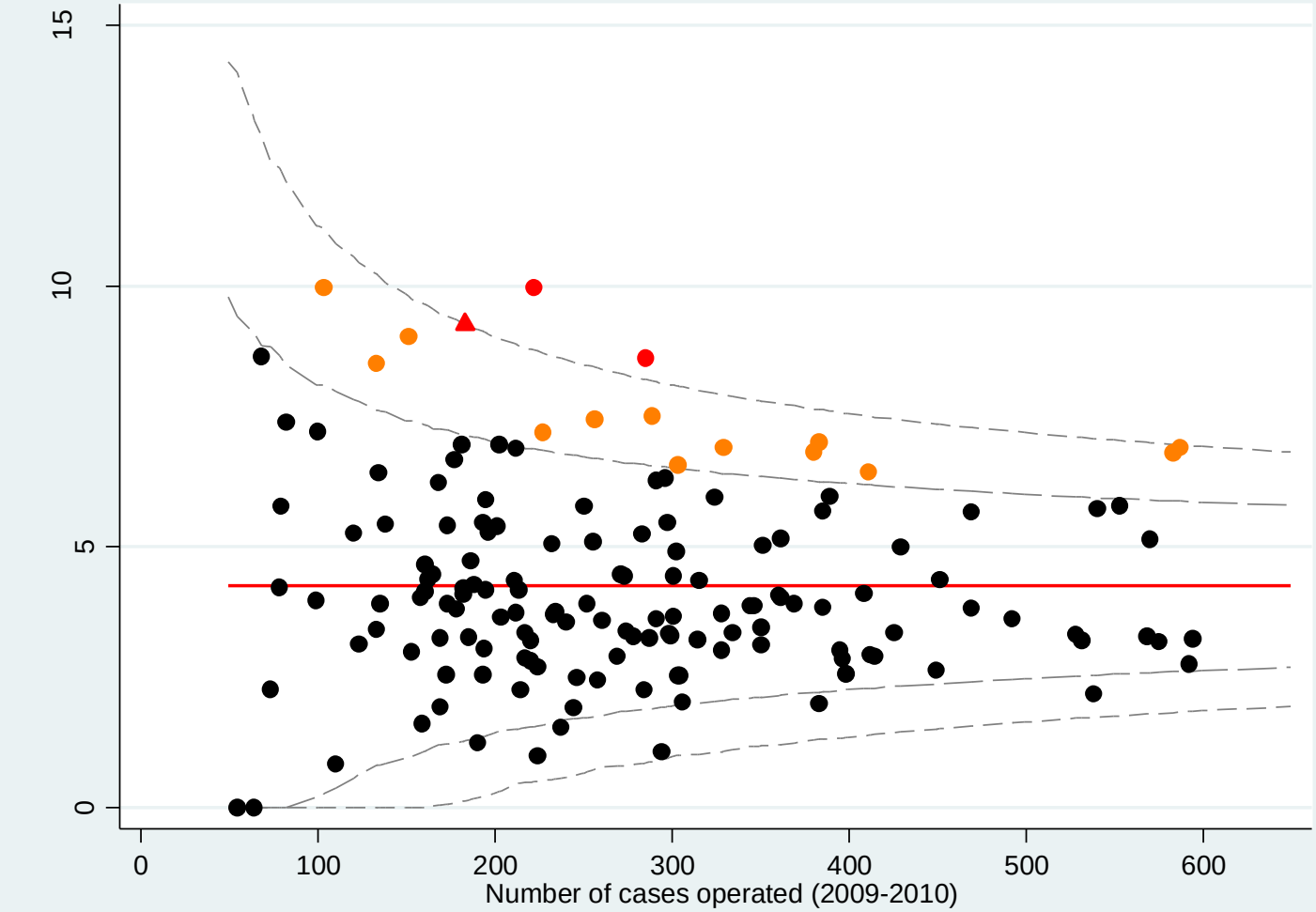

Odds of use of APE

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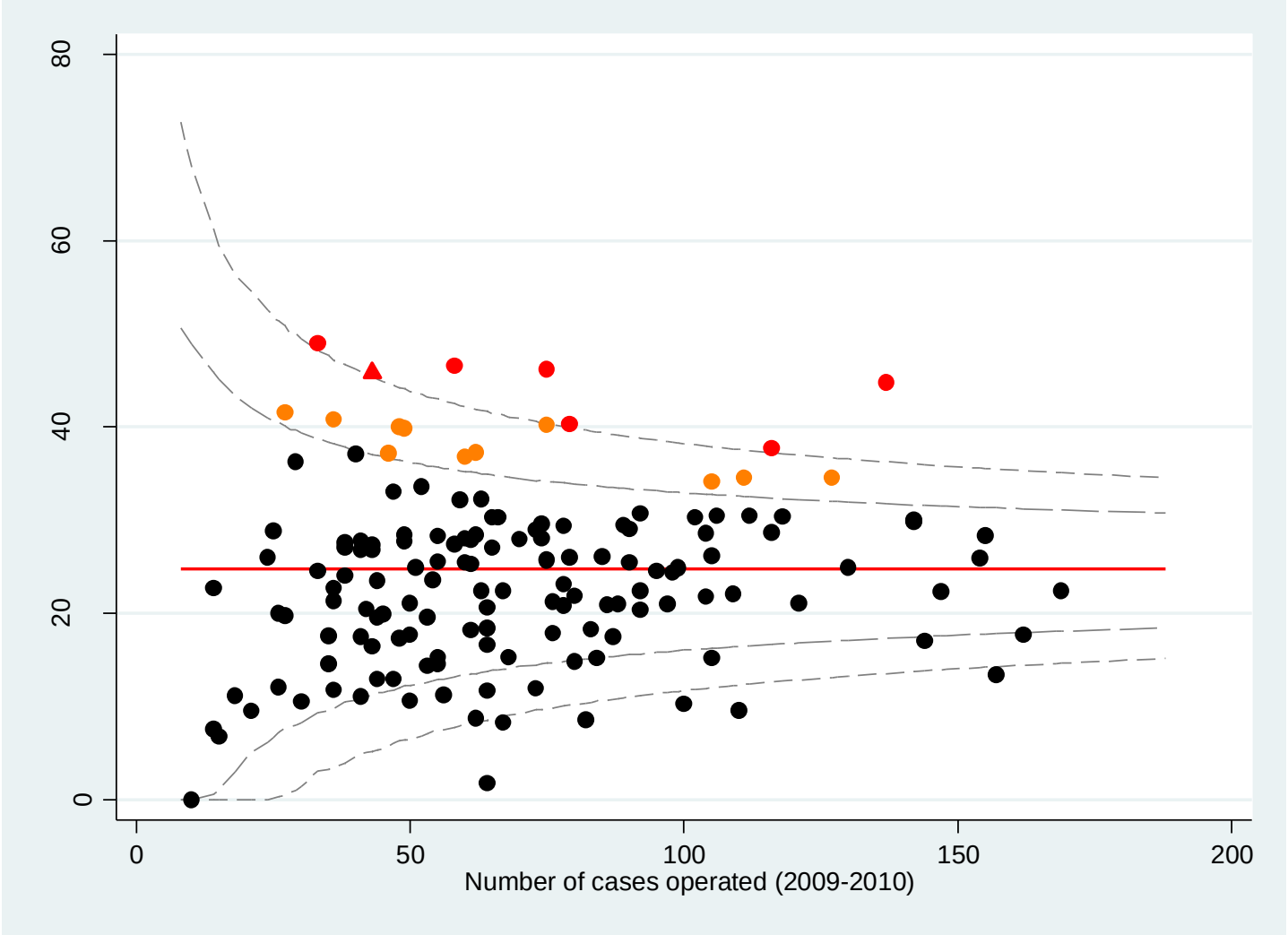

Odds of liver resection

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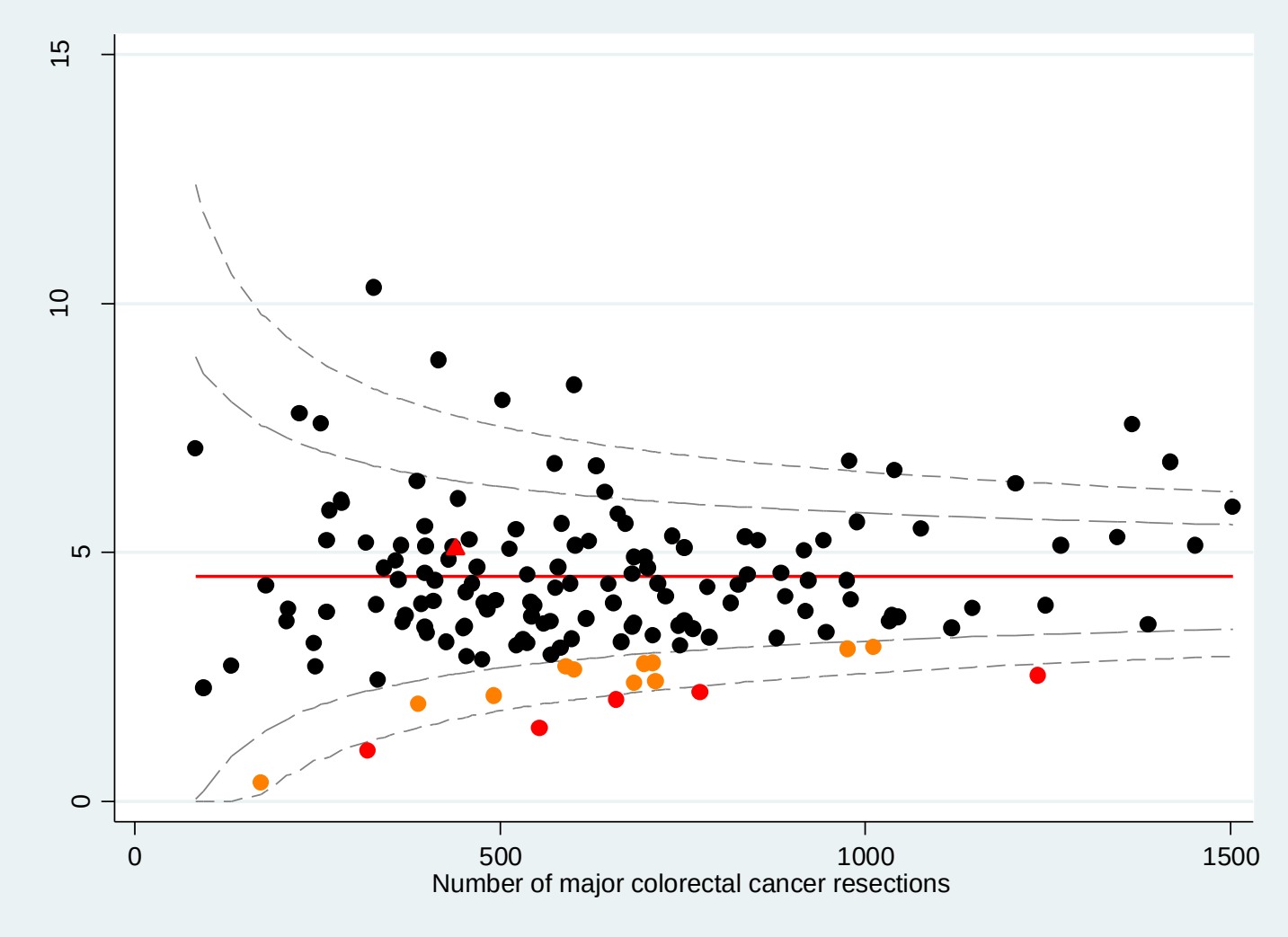

Next steps

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- Work in progress
- Methodology needs to be refined
- Publication of initial indicators planned for June 2016
- Subsequent addition of more indicators:
    - Use of radiotherapy in rectal cancer
    - Complications/returns to theatre
    - Use of chemotherapy in Dukes C/high-risk Dukes B patients
    - 30-day mortality following chemotherapy/radiotherapy
    - Survival