Why ACE? Supporting an innovation cycle
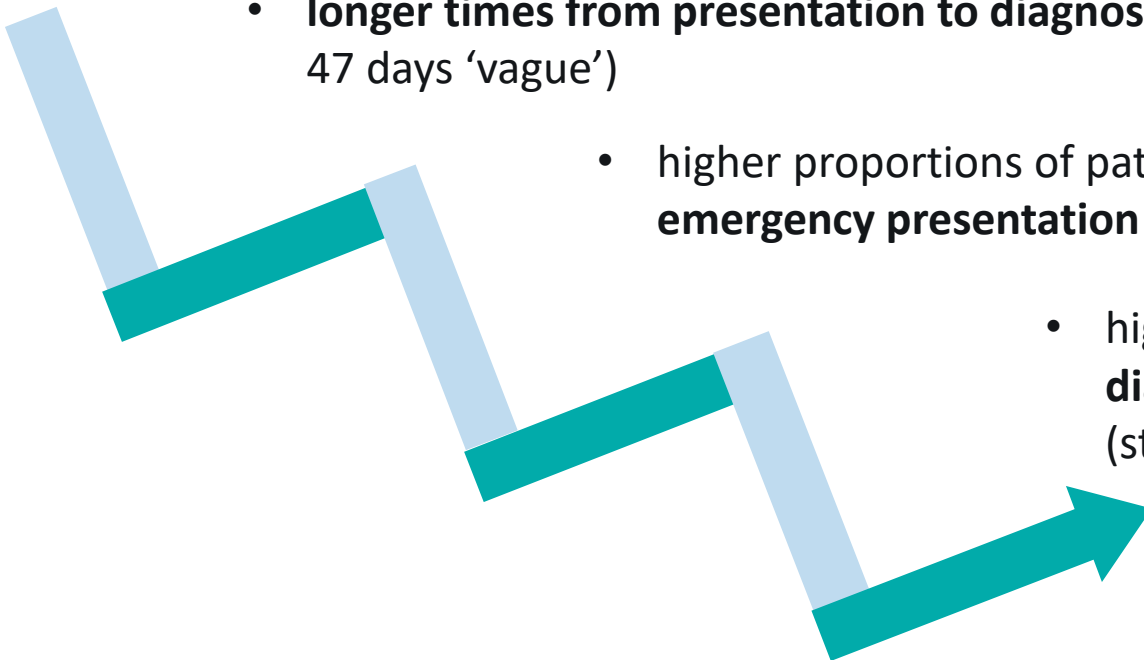
The objective is to evaluate a range of service innovations so as to accelerate the pace of learning and change (in early diagnosis)

ACE Innovation Seed-bed (e.g.W1)
- Created 'bottom-up'
- Varied portfolio of local, small scale innovations
- ≈ Local systems traction; social movement;
- ≈ Ideas that grow for the future

- Showcase reports
- Shortlist of innovations

Other Sources e.g. EDAG

Funnel of ideas for pathfinder approach

Rollout

ACE Pathfinder (e.g.W2)
- Recruited to a brief
- Cohort of projects trialling one idea
- ≈ Greater scale /coverage
- ≈ Pathfinder for national implementation

- Evaluative reports
- Implementation resources

Current scope:
- *Multidisciplinary diagnostic centres (MDCs) pilots*

Examples of ideas being taken forwards:
- *Proactive lung approaches*
- *STT with triage, colorectal pathway*
- *Pathways for vague symptoms*

- Offers independent support for assessing & evaluating innovations

- Facilitates relationships across: primary & secondary care, NHS E, PHE and academics

- Is delivered in collaboration with the NHS, CRUK, and Macmillan Cancer Support
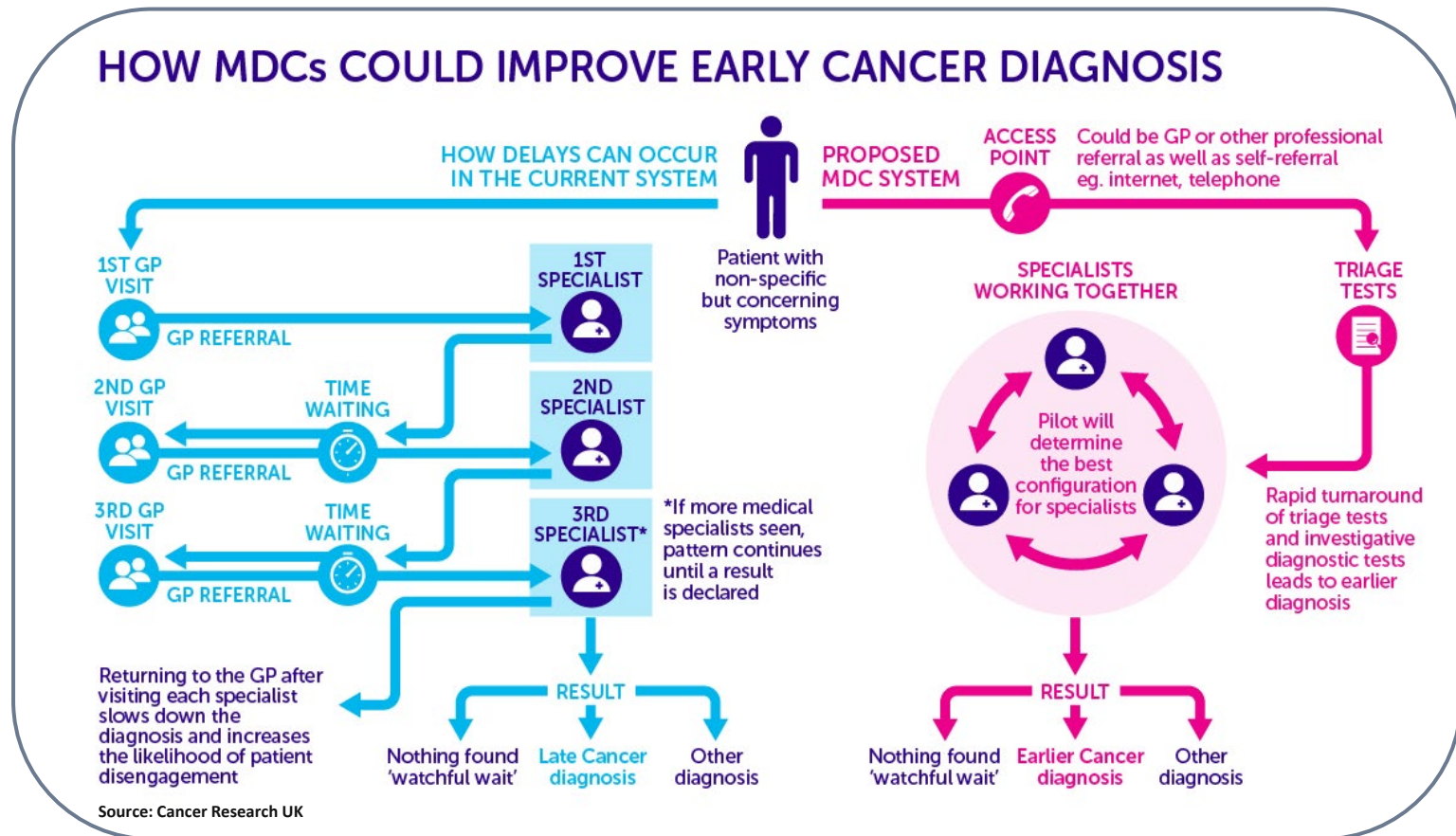
The need: patients with non-specific symptoms often experience poorer cancer outcomes

ACE analysis of National Cancer Diagnosis Audit (NCDA) data shows that, compared to those with 'alarm' symptoms, patients presenting with non-specific but concerning symptoms (NSCS or *'vague'*) had:

- higher proportions of patients having **3+ GP consultations** before referral (21% vs. 32% 'vague')

- **longer times from presentation to diagnosis** (median: 38 days vs. 47 days 'vague')

- higher proportions of patients **diagnosed via emergency presentation** (16% vs. 34% 'vague')

- higher proportions of patients **diagnosed at a late stage** (stage 4; 21% vs. 32% 'vague')
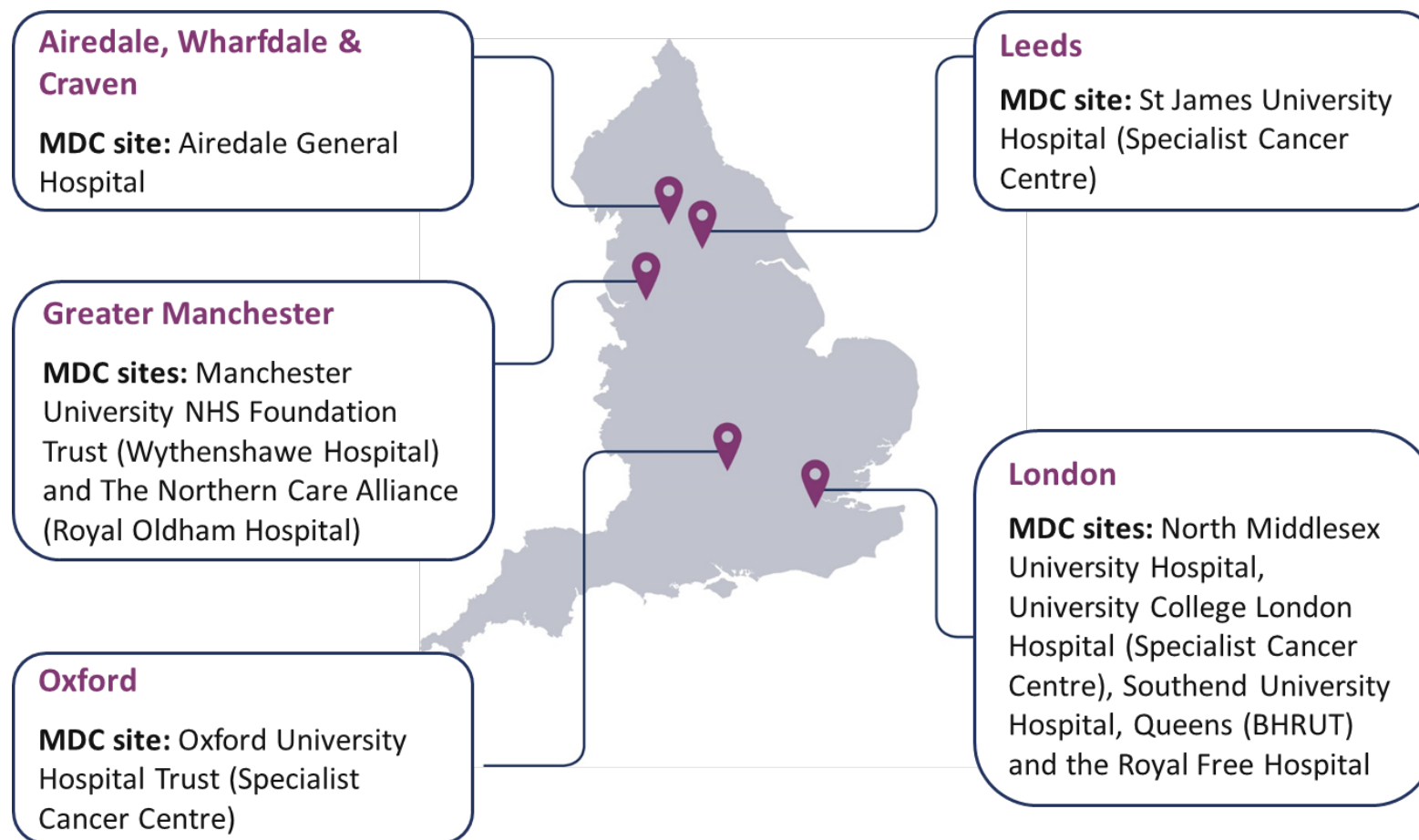
The theory: MDCs as a patient centred approach

HOW MDCs COULD IMPROVE EARLY CANCER DIAGNOSIS

HOW DELAYS CAN OCCUR IN THE CURRENT SYSTEM

Patient with non-specific but concerning symptoms

PROPOSED MDC SYSTEM

ACCESS POINT — Could be GP or other professional referral as well as self-referral eg. internet, telephone

1ST GP VISIT — GP REFERRAL — 1ST SPECIALIST

2ND GP VISIT — TIME WAITING — 2ND SPECIALIST — GP REFERRAL

3RD GP VISIT — TIME WAITING — 3RD SPECIALIST* — GP REFERRAL

*If more medical specialists seen, pattern continues until a result is declared

Returning to the GP after visiting each specialist slows down the diagnosis and increases the likelihood of patient disengagement

RESULT: Nothing found 'watchful wait' | Late Cancer diagnosis | Other diagnosis

SPECIALISTS WORKING TOGETHER — Pilot will determine the best configuration for specialists

TRIAGE TESTS — Rapid turnaround of triage tests and investigative diagnostic tests leads to earlier diagnosis

RESULT: Nothing found 'watchful wait' | Earlier Cancer diagnosis | Other diagnosis

Source: Cancer Research UK

- Providing rapid access to a range of diagnostic tests for patients with **non-specific symptoms**
- Achieving **earlier and faster detection** of cancers for this patient group
- **Improving patient and GP experience** for non-specific symptom referrals

10 MDC pilot sites across England

Airedale, Wharfdale & Craven

MDC site: Airedale General Hospital

Greater Manchester

MDC sites: Manchester University NHS Foundation Trust (Wythenshawe Hospital) and The Northern Care Alliance (Royal Oldham Hospital)

Oxford

MDC site: Oxford University Hospital Trust (Specialist Cancer Centre)

Leeds

MDC site: St James University Hospital (Specialist Cancer Centre)

London

MDC sites: North Middlesex University Hospital, University College London Hospital (Specialist Cancer Centre), Southend University Hospital, Queens (BHRUT) and the Royal Free Hospital

MDC results: patient characteristics

Covering the period up to **31st July 2018**, the ACE MDC evaluation reported the following information on patient characteristics:

Patients

- **2,961 patients** referred

- **69** years old (median)

- **17-97** years old (range)

- **56%** female

Health status

- **70%** with comorbidity

  - 43% mild;
  - 27% moderate or severe

- **40%** with some degree of physical restriction

  - 18% moderate or severe

Symptoms

- **66%** with weight loss

- **30%** with nausea / appetite loss

- **36%** with pain (abdominal & other)

- **36%** GP 'gut feel'

58% of patients presented with 2 or more symptoms*

Statistical trend identified between **increasing number of symptoms and risk of cancer diagnosis**

*excl. GP 'gut feel'

MDC results: cancer diagnoses

*Covering the period up to **31st July 2018**, the ACE MDC evaluation recorded a range of cancer conditions:*

- **239 cancers** diagnosed, 134 **(56%)** of which were **rare & less common** cancers

- **8% cancer conversion** rate (range: 4-11%)

- **26% of cases diagnosed at stage I/II** (of 79% of cases with staging data)

Cancer cases by tumour group (all cancers)

Tumour group	
Upper GI	~22%
Lung	~22%
Urological	~13%
Lower GI	~13%
Haematology	~12.5%
Breast (inc in situ)	~6%
Other (inc CUP)	~5.5%
Soft tissue sarcoma	~2.5%
Skin	~1%
Gynaecological	~1%
Not specified	~1%
Brain/CNS	~0.5%
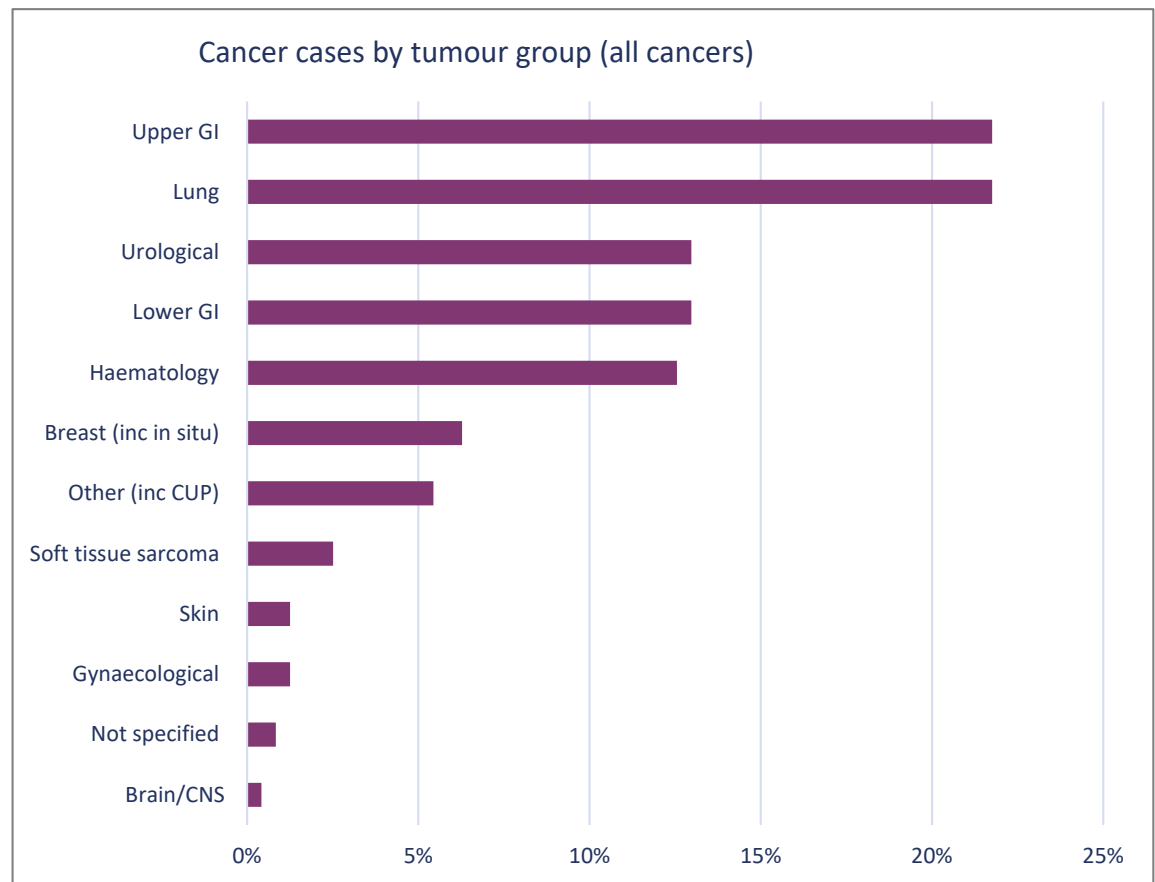
MDC pathway activity (all cancers)

*Covering the period up to **31st July 2018**, and including all cancer cases, the ACE MDC evaluation recorded the following pathway activity:*

Interval times across the pathway – median time in days

GP referral to first seen: 8 (0-84) N:2,743

GP referral to cancer diagnosis (clinical): 19 (0-199) N:217

Any referral to treatment: 57 (6-269) N:142

MDC results: non-cancer diagnoses

*Covering the period up to **31st July 2018**, the ACE MDC evaluation recorded a range of non-cancer conditions:*

- **Over one third** patients diagnosed with non-cancer conditions, commonly associated with the following diseases:

Group description	Main diseases	%
Diseases of the digestive system	Diverticular disease, Gastritis, Hiatus Hernia , Gallstones, Non ulcer dyspepsia, Irritable Bowel Syndrome, Gastro-oesophageal reflux disease without oesophagitis, Barrett's oesophagus	39%
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Lung nodule	12%
Diseases of the respiratory system	Bronchiectasis, Emphysema, Interstitial pulmonary disease	9%

A patient-centred approach

ACE MDC pathways can be considered to be patient-driven, not process-driven:

- All patients undergo an initial detailed clinical assessment & history-taking
- Diagnostic investigations are determined by individual patient assessment
- Patients are supported by CNS/Navigator **from point of referral** onwards
- MDC retains patient responsibility until a diagnosis is achieved or serious illness is discounted

o **The MDC Patient Experience Survey (2018) showed that:**

- 85% of patients responded positively to the question 'Effectiveness of people working together to provide the best possible care for patients (61.2% CPES 2016)

- 81.1% reported that test results were explained in a way that could be understood (79.1% CPES 2016)

o **MDCs providing rapid diagnoses for patients within planned routes of care:**

- 89% of patients felt the 'length of time it took for the tests to be done' was about right

MDC: rare & less common cancers – NCDA analyses

Over the remainder of 19/20, ACE will be reviewing MDC data with a focus on rare & less common cancers....

NCDA analyses

MDC update

Cancer52 disease profiles

- Analysis **to date focused on all cancer cases** with focus on 'vague' and 'obvious' cohorts.

- Data (2014 diagnoses) to be **analysed at tumour-specific level** to provide MDC proxy comparator for rare & less common cancers

Tumour-site	All cases	Vague	Obvious
Pancreas	408	257 (63%)	151 (37%)
Stomach	248	80 (32%)	168 (68%)
Kidney	414	114 (27%)	300 (73%)
NHL	536	147 (27%)	389 (73%)
Myeloma	184	78 (42%)	106 (58%)
Oesophagus	390	65 (17%)	325 (83%)
Ovary	313	162 (52%)	151 (48%)

MDC: rare & less common cancer profiles

Over the remainder of 19/20, ACE will be reviewing MDC data with a focus on rare & less common cancers….

NCDA analyses

MDC update

Cancer52 cancer profiles

- Templates submitted from thirteen Cancer52 organisations, covering:

  - Presenting symptoms & pre-cursor conditions;
  - Diagnostic tests & routes to diagnosis;
  - Staging profiles & challenges to achieving early diagnosis

- Information to be collated and used to inform evaluation and analysis of NCDA and MDC data

- Evidence to inform report on MDC rare & less common cancers in autumn 19, with involvement from ACE, MDC pilots and Cancer52 organisations
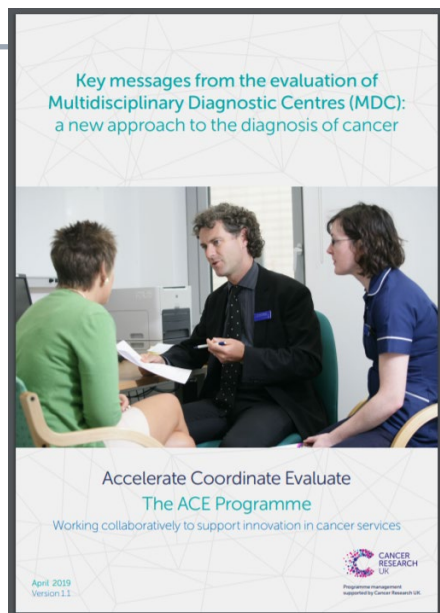
In summary, results indicate that:

o MDCs have value as a **symptom-based pathway** for addressing the need of complex, unwell patients

- o 8% cancer conversion rate at programme level
- o Patients are positive about levels of support, information and collaborative working in MDC

o MDCs are well configured to **diagnose hard to detect cancers**:

- Over half of cancers diagnosed considered to be rare and less common cancers
- Majority of diagnosed cancers associated with broad symptoms with varying or low predictive values

o MDCs are providing a **broad and rapid diagnostic approach**

- o Over one third of patients diagnosed with non-cancer conditions
- o Median time of 19 days from referral to clinical diagnosis of cancer

Looking forwards

ACE Programme

- A series of papers in plan including: early results; diagnostic tests; less common cancers; non-cancer conditions
- Further news & information shared on the ACE website www.cruk.org/ACE
- Sign-up for alerts via a dedicated newsletter – contact ACEteam@cruk.org.uk

Key messages from the evaluation of Multidisciplinary Diagnostic Centres (MDC): a new approach to the diagnosis of cancer

Accelerate Coordinate Evaluate
The ACE Programme
Working collaboratively to support innovation in cancer services

April 2019
Version 1.1

CANCER RESEARCH UK

NHS England

- RDC Implementation Specification
- 1 RDC per Cancer Alliance in 19/20; starting with non-specific symptom cohort

GEORGE, 68

" I was recently diagnosed with Lymphoma,

Manchester MDC