

Improving early diagnosis in the NHS through better use of diagnostics

The opportunity

The UK has a late diagnosis problem. Increasing the focus on early diagnosis and improving access to – and the use of – diagnostics is critical to improving health outcomes across the NHS. The General Election presents an opportunity to set out how this can be achieved by committing to:

- **Specific goals for early diagnosis** across all appropriate medical conditions
- **National strategic leadership** for early diagnosis and diagnostics, in support of localised activity, ensuring services are well-planned and long waiting times are tackled
- **Investment in better supply** of diagnostics and skilled NHS staff

The UK can be the best in Europe in the use of diagnostics to improve early diagnosis, provided there is national political leadership on the issue.

Why do we need to improve early diagnosis?

- **The UK has a late diagnosis problem**, with approximately 40% of HIV patients being diagnosed late,¹ approximately 24% of cancer patients only being diagnosed after an emergency presentation² and around 1 million people living with undiagnosed type 2 diabetes.³ Late diagnosis means the condition is harder to treat (in cancer because it is likely to have spread within the body), changes of survival may be reduced and the cost of care increased
- **Earlier diagnosis would dramatically improve patient outcomes in mental and physical health.** A shift in the focus to prevention and early diagnosis would help improve outcomes and ensure a better patient journey by reducing side effects and the use of unnecessary treatment / procedures. For example, being diagnosed late with HIV is associated with a tenfold increased risk of death within one year of diagnosis⁴
- **Delays in accessing diagnostics mean that people's health is deteriorating while they wait.** Key waiting time standards are routinely being breached and a major reason for this is shortages in diagnostic capacity and staff.⁵ The result is that people are waiting for a diagnosis when they could be receiving effective treatment, damaging their chances of leading healthy and productive lives
- **It is critical to addressing health inequalities.** Late diagnosis disproportionately affects poorer communities. Cuts to local government services since 2010 have had a significant impact on the most deprived communities, leading to treatable diseases such as cancer being diagnosed too late⁶
- **Early diagnosis is cheaper for the NHS.** Early stage treatment is significantly less expensive than treatment for advanced disease – for example in ovarian cancer stage 1 treatment costs £5,328, whereas stage 4 treatment costs £15,081⁷

What are diagnostics?

Diagnostics are used to enable diagnosis, rule out causes of ill health and to monitor, screen and assess people for potential health problems. Increasingly, they also allow people with chronic diseases to manage their own conditions. Diagnostics refer to a range of different types of technologies, including In Vitro Diagnostics (IVDs), imaging and genomic testing. These technologies can be utilised in different settings – within the hospital, community or home – by a core workforce for varying types of diagnosis.

How can diagnostics support the NHS?

- **Improve patient outcomes** by enabling faster diagnosis and the delivery of personalised treatment
- **Empower people living with long-term conditions** to have the information and support to self-manage
- **Reduce waiting times and costs to the NHS**, eg within hospital emergency care, new diagnostic practices allow patients to spend just hours in hospital rather than being admitted to a ward⁵

These benefits not only improve the care of individuals but can also deliver systematic benefits to the NHS in terms of efficiencies and savings in service delivery.

Diagnostics in action

Supporting early diagnosis in myeloma - Currently, myeloma, a cancer of white blood cells, is diagnosed using analyses of a patient's serum and urine carried out in a laboratory before being confirmed by a haematologist. However, this process is insensitive, time-consuming, and sometimes ineffective. A new serum-specific test called serum free light chain analysis (sFLC) has been shown to reduce diagnostic delays, preventing life threatening complications for the patients and a huge financial burden on the NHS.

Reducing antibiotic prescriptions - The A&E Department at Birmingham Children's Hospital has piloted a rapid point of care test produced by a BIVDA member company, to determine whether patients presenting with a sore throat had a bacterial infection and required antibiotic treatment. Between 23 August and 16 November 2015, all children presenting to A&E with pharyngitis were assessed for inclusion in the study. In total, 214 children participated, and the results showed that during the pilot, 51/214 (24%) were prescribed an antibiotic – a 70% reduction in incorrect/unnecessary antibiotic prescriptions for tonsillitis in A&E.

Enabling proactive prevention - Elevated faecal calprotectin (FC) is a marker of intestinal inflammation, including that caused by Inflammatory Bowel Disease (IBD). Home-use tests allow patients to monitor their own FC levels and transmit the results directly to their healthcare professional (via a smartphone). These tests are designed to reduce avoidable clinic visits through the creation of patient-specific thresholds.

Realising savings for the NHS - Colonoscopies and small bowel radiology as tools to test for bowel disease are invasive and unpleasant procedures, often putting patients off getting themselves checked. Calprotectin, a quick, effective, non-invasive, and cheap tool performed on stool samples can distinguish between patients suffering from Irritable Bowel Syndrome (IBS) and Inflammatory Bowel Disease (IBD). Not only can it save the NHS £162 million a year, it could be used to monitor treatment effectiveness, preventing prolonged failing treatment. Despite its benefits, less than 1% of GP practices currently use Calprotectin.

More information on each of these examples is available at www.bivda.org.uk.

About BIVDA

BIVDA (the British In Vitro Diagnostics Association) is the national industry association for the manufacturers and distributors of IVD products in the UK and we currently represent more than 95% of the industry and over a hundred organisations. BIVDA members currently employ over 8,500 people in the UK, with a total industry turnover of approximately £820 million. If you have any questions or require any additional information, please contact Doris-Ann Williams MBE, Chief Executive, BIVDA on Doris-Ann@bivda.co.uk.

November 2019

¹ Public Health England, [Sexual and Reproductive Health Profiles](#), 2015

² National Cancer Registration and Analysis Service, [Routes to diagnosis](#) (accessed November 2019)

³ Diabetes UK, [Number of people living with diabetes doubled in twenty years](#) (2019)

⁴ Public Health England, [HIV New Diagnosis, Treatment and Care in the UK](#) (2015)

⁵ NAO, [NHS waiting times for elective and cancer treatment](#) (2019)

⁶ Imperial College London, [Poorest dying nearly ten year younger than the in rich in "deeply worrying" trend](#) (2018)

⁷ CRUK and Incisive Health, [Saving lives, averting costs – an analysis of the financial implications of achieving earlier diagnosis of colorectal, lung and ovarian cancer](#) (2014)