



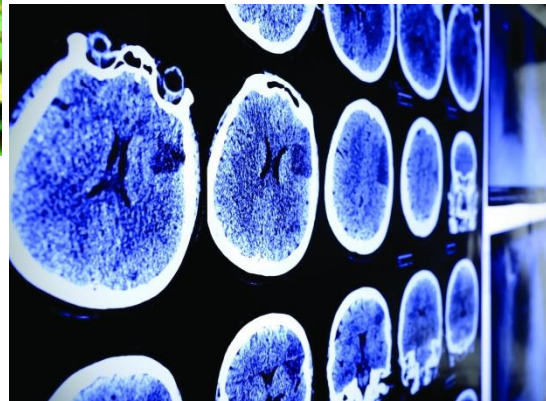
The Leeds Teaching Hospitals NHS Trust  
Translating research  
excellence into  
world class care

Dr Yvette Oade,  
Chief Medical Officer

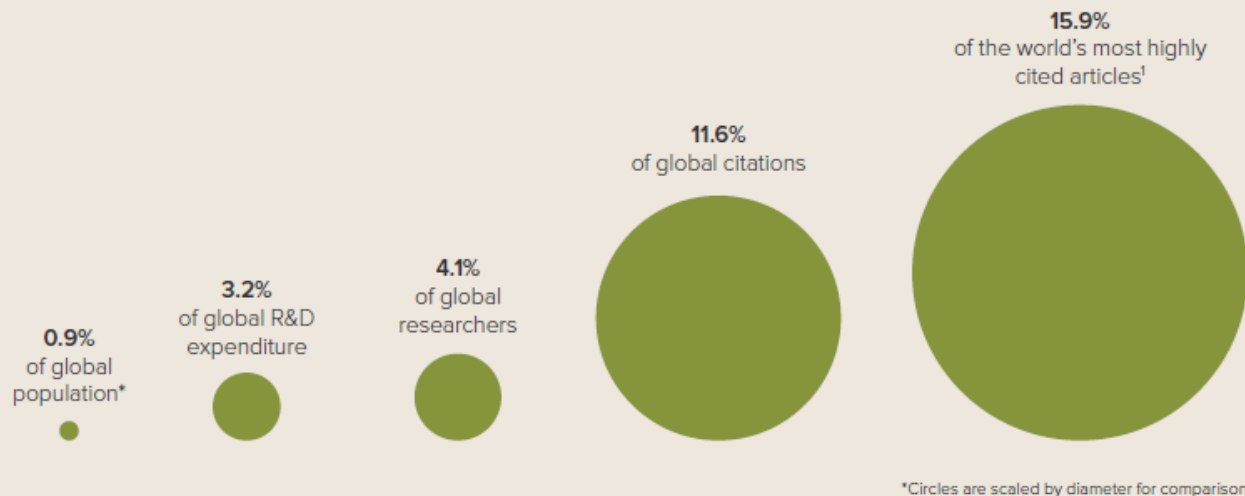
## UK - world class innovation



A quarter of the world's top 100 prescription medicines were discovered and developed in the UK



## BOX 1: The strength of UK research and innovation



### HOW THE UK RANKS GLOBALLY

**2<sup>nd</sup>** for the quality of its scientific research institutions.<sup>2</sup>

**2<sup>nd</sup>** in the Global Innovation Index which compares 143 economies on 81 indicators.<sup>3</sup>

**4<sup>th</sup>** for its university-industry collaboration in R&D.<sup>4</sup>

The UK has won 16% of research funding from the most recent European Framework Programme (FP7) with only 12.7% of the EU-28 population.<sup>5</sup>

In 2013 medical research charities fund £1.3 billion of health research – a third of all publicly funded medical research.<sup>6</sup>

UK research is cited in  
**10.9%**  
of all patent applications worldwide.<sup>7</sup>

*Building a stronger future*  
Royal Society/Academy of  
Medical Sciences  
2015

# Clinical benefit of research extends beyond specific research studies

“A study, supported by the National Institute for Health Research (NIHR) Clinical Research Network (CRN), has found that bowel cancer patients are more likely to survive in research-active hospitals.

**Even patients who are not involved in the trials themselves benefit from being in hospitals where a large amount of clinical research is taking place.**

Using data from the NIHR CRN, researchers Dr Amy Downing and Professor Eva Morris at the University of Leeds discovered that people are more likely to survive after operations in these types of hospitals and are more likely to still be alive five years afterwards. **There was nearly a four per cent increase in the five-year survival rate for those treated in highly research-active hospitals.....”**



# The challenge of adoption

## Stroke Units

1960s	First RCT Stroke Unit care
1980s	
1993	Meta-analysis 10 RCTs Stroke Unit care (n=1586)
1995	
2002	National Audit: 1/3 people access Stroke Units
2004	
2006	National Audit 1/3 people not accessing Stroke Units
2012	90% access for all patients to Stroke Units

## Thrombolysis

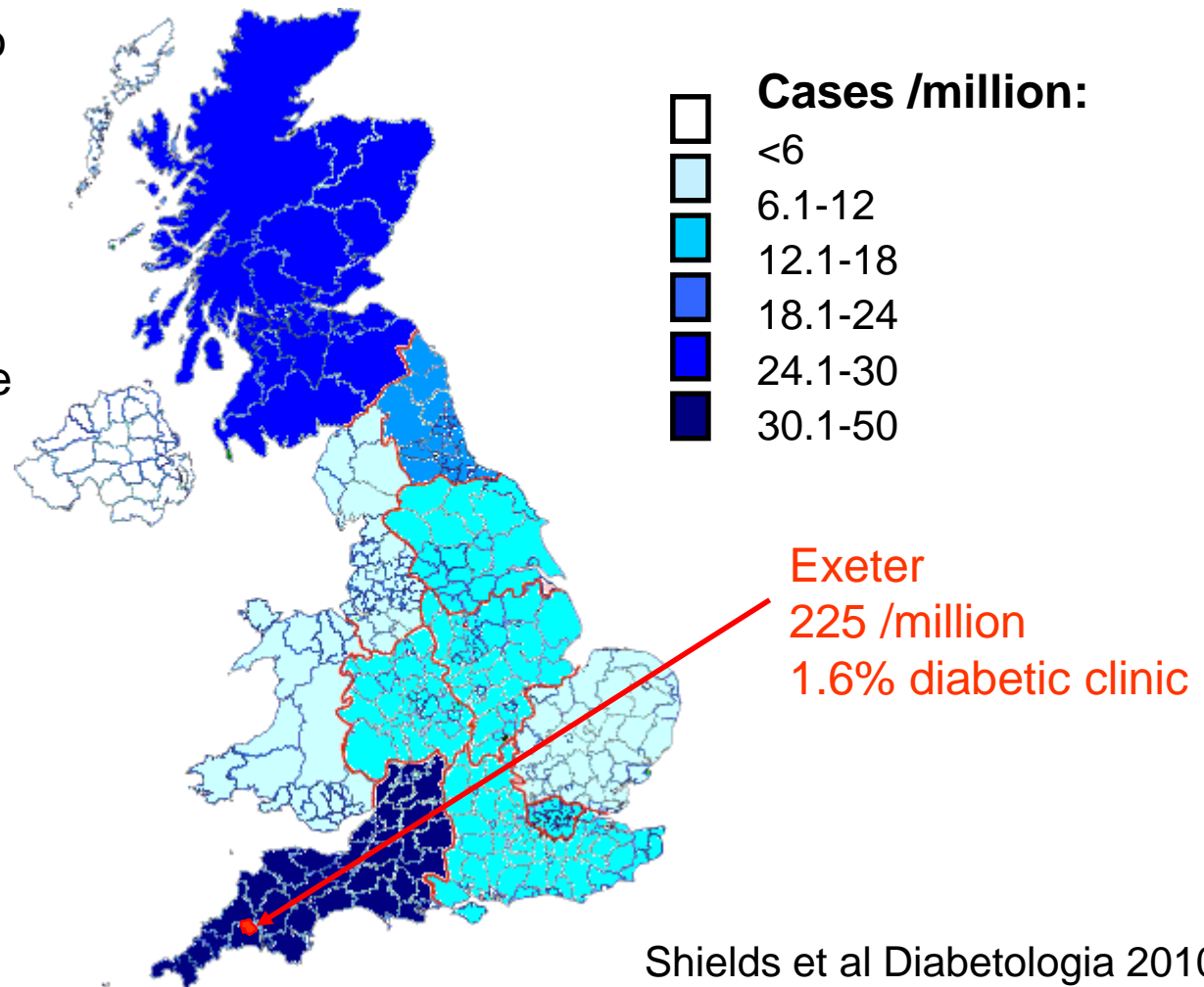
First reports thrombolysis
Trials of streptokinase
NINDS trial
Meta-analysis thrombolysis 0-3 hr trials (n=2776)
90% Hospitals not offering thrombolysis
> 5% all patients receiving thrombolysis

# The challenge of adoption

2000: Genetic testing  
for MODY introduced to  
NHS in 2000

2003: Randomised trial  
proved patients with  
common MODY  
subtypes were sensitive  
to sulphonylureas, and  
could replace insulin  
treatment and improve  
control

2013: despite research  
proof and availability of  
test, 90% of MODY  
diabetes misdiagnosed  
T1D or T2D



Shields et al Diabetologia 2010  
With thanks to Prof Andrew Hattersley

# The challenge of adoption

## Insulin pumps for people with type 1 diabetes

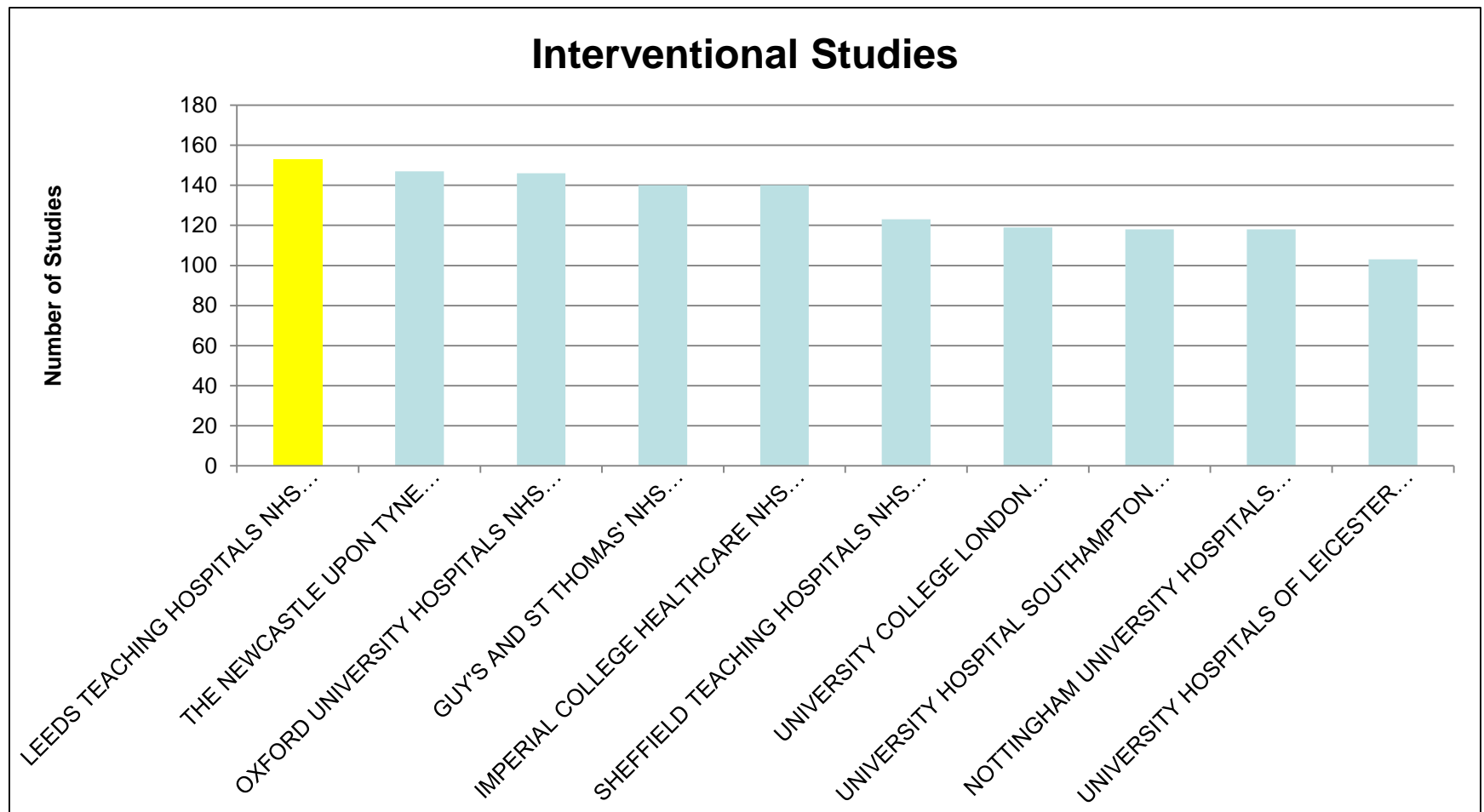
Using a pump leads to a reduced number of unplanned hospital admissions & complications compared with self-management

Study by the Medical Technology Group found that uptake averaged just 3.9 per cent in the UK, compared to the benchmark of 12 per cent recommended by NICE.

Uptake in the US, Sweden, France and Germany is between 15 and 35 per cent (MTG 2010).



# NIHR Portfolio Interventional Studies 16/17





# NIHR Portfolio Recruitment 16/17

