“Tests as part of a wider system”
Chris Hudson
Director of Healthcare Development - Roche Diagnostics Ltd
“Tests as part of a wider system”

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Director of Healthcare Development - Roche Diagnostics Ltd
“In Vitro Diagnostics Tests as part of a wider system”
Chris Hudson
Director of Healthcare Development - Roche Diagnostics Ltd
Agenda for today

Challenges of the NHS...

History...the predictor of the future?
Diesels V Bullets?
Isolationism rules?
Change of focus?
Value for everyone?
Real life in today's NHS...

*A patients story...today’s NHS*

- Jim aged 87 - ex NHS dentist
- **Health history**
  - Diabetes T2 - 15 years *progressive* controlled with tablets
  - CHF - 5 years - Stented & diuretics
  - Renal issues - 25 years...
- **Recent health history (8 weeks)**
  - Taken off diuretics 8 weeks ago advice to GP from Nephrologist.
  - Admitted to hospital 3 weeks ago
  - CHF diagnosed & back on diuretics.

Is he one of the @3% of patients that use @45% of CCGs budgets?
Real life in today’s NHS…

Provider’s and commissioner’s what’s the rough economics of the deal to them and then to the NHS overall?

**Commissioner (CCG)**

**Savings**
- Eight weeks diuretics £50

**Expenditure**
- Payment to hospital to provider under contract
- No transparency - but less cost than the Acute trust

**Total (loss) to CCG** £ ?

Total savings to NHS £50. Total Costs £10,604. Overall cost to NHS £10,554

**Provider (Acute Trust)**

**Savings / income CCG**
- CCG payment £ ?

**Expenditure**
- A & E admission £(233)
- AMU 5 x days £(1,726)
- CCU 16 x days £(5,788)
- Catheterisation 15 x days £(1,838)
- Other Costs - BgM, Oxygen £(1,019)

**Total (Cost) to Acute Trust** £(10,604)

How Many “Jims” might there be in the £2.45bn NHS overspend in 2015-2016?

£2.45bn /£10,554 = 232,139 “Jims”

• 1,507 average per Acute Trust (154)
  – 29 per week per trust

• 1,110 average per CCG (209)
  – 21 per week per CCG

Thoughts
• Does this “silo” budgeting/patient management mentality really work?
• “Penny wise and pound foolish”
• Joined up thinking needed - “common sense” too?
• Money following the patient & IT systems to support the flow!

Is he one of the @3% of patients that use @45% of CCGs budgets?
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History … a “predictor of the future”

Is the NHS, the “Death Valley” for uptake of innovation?

Troponin Testing

- 25 years for widespread adoption in UK
- Still large variations in usage
- “In the 19 years of clinical practice the only test that changed in the “routine” panel was CKMB for Troponin”

Sir John Savill CEO MRC Dec 2015

Thought to consider

In the UK we “Innovate” and “Evaluate” well but do we then ADOPT?
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Value for everyone?
If you could get to your destination faster in a bullet train for the same ticket price on an old slow diesel train, would you really take the diesel train?

High Sensitivity Troponin
- 25 years of Troponin testing “history”
- New Troponin test giving a result at 1 hour v’s 3 hours - fantastic technological advance!
- Introduced 5 years ago - price same as “Old” Troponin.

Opportunity to:
- Improve clinical practice, patient treatment and patient outcome.
- Reduce strain on stretched A&E and specialist resources.
- Improve value for everyone.
So what has happened with HS Troponin?

*Patients and the system will have to wait for better care…*

**Outcome - 5 years later**

- NICE positive endorsement 2014 but its only a “guideline” only for Diagnostics - **WHY?**
- Only 20% sites are utilising the HS Troponin

**Potential Conclusions?**

- New “tools” are available to significantly improve clinical practice, patient outcome & use of scarce resources with **NO increase in cost** - overall “Value” significantly increased
- The NHS does not have the WILL nor CAPACITY to change?
- Change Management is the “missing” piece?
- “Empowered Champions” needed?
- All of the above?
Pre Eclampsia
A major opportunity to change clinical practice in maternal health

Situation

• Been available for nearly 3 years

• NICE guidance May 2016

• John Radcliffe Oxford only hospital in UK that has implemented ..so far

• Sites asking to do studies to validate for “local population” - WHY ?

• What will be the future for this innovation ?
Agenda for today

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Change of focus ?

Value for everyone ?
The “technology” seems to be THE focus on IVDs. The discussion should be on the VALUE to the whole system.

Patients are treated in “care pathways”

NICE

- “Health Technology Assessment”
- The Value delivered to the whole system is not considered.
- Assessment is Guidance only, not Mandatory like Medicines.
- No measurement of implementation: Innovation scorecards have less than 10 IVDs, whereas Medicines are 60+.
- No funding to change clinical services
- No support for IMPLEMENTATION
Resolving the problems of the NHS requires thinking on a wider scale than just “technology” and “costs”.

Doing *more of the same* is NOT the answer to a system challenged by cost.

**Example:**
- Acute Trust at tender for Pathology: £20mn trust deficit
- **Problem**: too many elderly patients (“Jims”) coming from local CCGs - “bed blocking”, using expensive resources.

**Potential Solutions**

- Cut £1mn Pathology budget by 20% ….£200k **but** doesn’t reduce the underlying **REAL** problem of “Jims” coming from the CCG!
- **Or** cut the number of “Jims” by using changing Patient pathway (outreach Dx clinics) testing closer to the patient changing the pathways to reduce admissions e.g. NT ProBNP.

**Health economics** needed to look at Budget Impact on the **change** the health and wellbeing **system** (patient pathway and test) NOT just “cost effectiveness”.
Agenda for today

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Revaluing In Vitro Diagnostics

*In vitro diagnostics testing has long been a silent champion of healthcare:*

- IVD accounts for \(~2\%\) of worldwide healthcare spending
- IVD influences \(>60\%\) of clinical decision-making

Source: European Diagnostic Manufacturers Association (EDMA) 2009
The value of in vitro diagnostics

**Improving health, influencing smart spending**

![Diagram with steps: Disease prevention, Right treatment decision, Disease management]

**Screening**
- Disease prevention

**Diagnosis**
- Right treatment decision
- Information
- Keeping people healthy
- Getting the right treatment
- Stopping a patient from getting worse
- Chronic disease management

**Prognosis**
- Disease management
- Information
- Increasing efficacy of treatment
- Eliminating trial and error
- Reducing hospitalization
- Avoiding work productivity loss

**Stratification**
- Disease management

**Monitoring**
- Disease management

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**Improving people’s health**

**Influencing smart healthcare spending & saving healthcare costs**
Diagnostics are about gathering medical data
To be transformed into actionable information

Critical Success Factor:
Need patient EHR systems that are complete & join it all up - GeL model?
The NHS system needs a change of approach

*Four core concepts for success…*

- **Listen to** and **involve** - the wider “stakeholder” groups e.g. Patients, Industry
- **Focus and prioritise** - on what really matters FAST and **deliver VALUE**
- **Simplify** - make process of NICE adoption **Mandatory, Measured, Funded**
- **Leverage** expertise - internal & external e.g. Change Management & Best Practice Sharing
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In Vitro Diagnostics - The Roche view

The power of knowing for better patient care

- **Screening**
  - HPV
    - Knowing whether a woman is at the greatest risk of developing cervical cancer
    - Power to better prevent cervical cancer

- **Diagnosis**
  - NT-proBNP
    - Knowing whether a patient has heart failure, a disease that can be misdiagnosed half the time based on symptoms alone
    - Power to prescribe the right treatment

- **Prognosis**
  - Troponin T
    - Knowing whether a patient could die within 30 days after surgery
    - Power to intervene early

- **Stratification**
  - HER 2
    - Knowing whether it’s HER2 positive breast cancer
    - Power to take the treatment that works

- **Monitoring**
  - CoaguChek
    - Knowing you are taking the right dosage of anticoagulant
    - Power to prevent complications

Improving people and patients’ lives and making healthcare sustainable
Roche what we believe

Working together, creating value for all…

Within the next five years, Roche Diagnostics’ unique pioneering approach will have fundamentally changed the way patients are managed by ensuring in vitro diagnostics are always at the heart of care pathways and at the forefront of clinicians’ decisions – resulting in better patient outcomes.
Roche Diagnostics - our view

*Working together, creating value for all*

We will try to:

1. Enable the NHS to achieve their objectives and targets more effectively.

2. Create value for Clinicians, Trusts, CCGs, patients and the wider healthcare system.

3. Clearly differentiate to the NHS why they should choose Roche.
There is hope!

**Accelerated Access Review (AAR) - launched March 2015**

**About us**

**What we do**

The Accelerated Access Review aims to speed up access to innovative drugs, devices and diagnostics for NHS patients.

There are many benefits from achieving this goal, including:

- patients will have access to, and be treated with, cutting-edge medical products sooner
- research organisations, patient groups and charities will be an integral part of the process for developing new products from the outset
- clinicians will be able to support their patients to access more effective and affordable innovative treatments and achieve better health
- businesses will benefit as a result of a simpler, better and more joined up development pathway for medicines, devices and digital healthcare
- stimulation of new investment, jobs and economic growth to support the NHS

The Accelerated Access Review is considering medicines, devices and diagnostics. Three potential areas of reform have been identified: regulation, reimbursement and uptake.

- Interim Report Oct 2015
- Great deal of “hope” around this review.
  - “Innovation Partnerships”
  - “Innovation Pathways”
- “Galvanising the NHS to adopt innovation” - **May 2016**
  - **AHSNs** - fund to encourage system redesign
  - Clinical system leaders to champion change
  - Secondary Care - “Innovation champions”
- **Final report recommendations July 2016**
What is my ask of you?
No one person or group can solve this on their own

What I would like to ask you to do?

• Challenge - Status Quo
• Ask - “How do we implement quickly”?
• Keep asking - “Why not”
• Empower and experiment

And here’s WHY

“Jim” & others like him, are relying on the NHS.

• Industry can give the NHS lots of new “magic bullet” technology innovations..

• By working together we can help the NHS get the most Value out of new technology by looking at the wider system.
Doing now what patients need next