

A healthcare professional in light blue scrubs is looking at a large digital display. The display shows a complex network of blue lines and dots, resembling a diagnostic or data visualization. The professional is holding a clipboard and has an ID badge around their neck. The background is a blurred office setting with window blinds.

CHOICE ARCHITECTURE: IMPACT ON GP DIAGNOSTIC REQUESTING PATTERNS

UK Case Studies

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UK PRIMARY CARE BACKGROUND



30%

% of GP visits that result in pathology requests ¹



**£2.5
BILLION**

Annual NHS Pathology Spend ²



4%

Pathology as % of overall NHS Budget²



8.5%

Annual increase in testing in primary care³



£413M

Combined CCG Deficit 17/18 ⁴

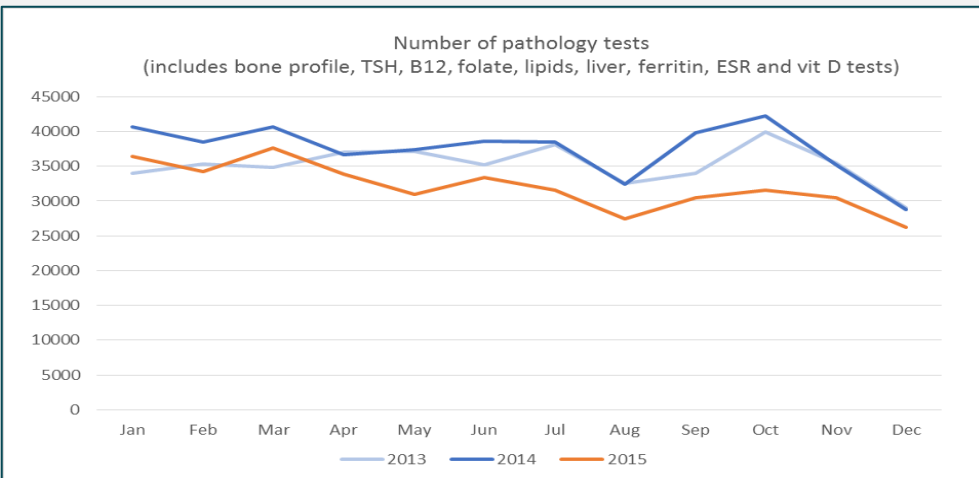
System pressures = Drive to reduce unwarranted variation

1. The effectiveness of interventions to improve laboratory requesting patterns among primary care physicians: a systematic review. Cadogan et al 2015
2. Report of the Review of NHS Pathology Services in England: An Independent Review for the Department of Health. Lord Carter of Coles 2006
3. Temporal trends in use of tests in UK primary care, 2000-15: retrospective analysis of 250 million tests BMJ 2018; 363:k4666
4. Financial sustainability of the NHS A report by the Controller and Auditor General – National Audit Office 18th January 2019

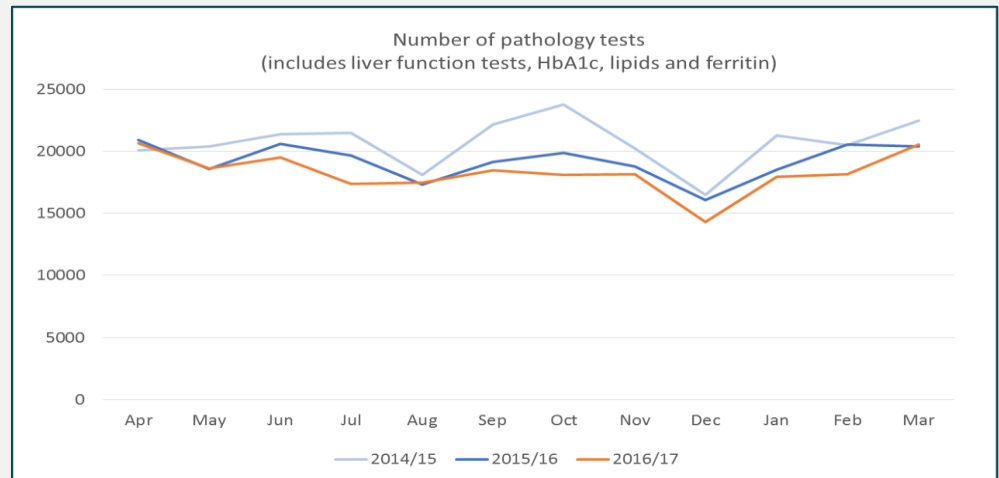
CASE STUDY I

Education, Audit and Incentives

Year 1:	Eight pathology tests were chosen to be the focus of the programme
Intervention:	Education sessions including short videos Self Audits and monthly dashboard data Peer review and practice discussions Outcome payments.
Outcome	15% reduction in activity for the selected tests



Year 2:	Change in test focus: high volume/spend/ clinical relevance
Intervention:	Education sessions including short videos Audits and monthly dashboard data Peer review and practice discussions Outcome payments.
Outcome	5% reduction in activity for the selected tests



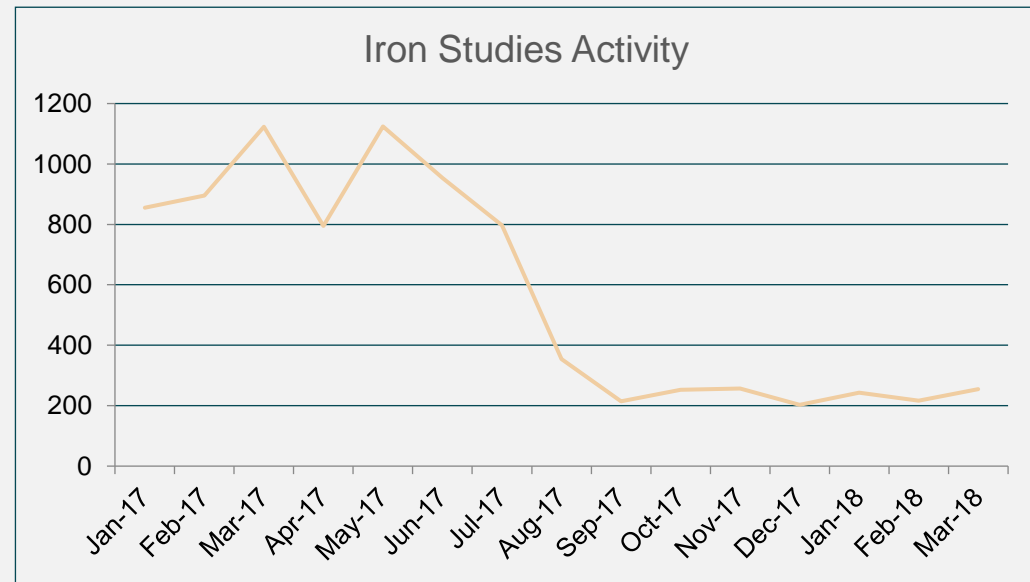
Advantages:	Disadvantages
Personal Development through self reflection	Incentives reduce potential saving
Peer Review and interaction	Time & resource intensive
	Weak return on investment
	Effects short lasting

Result: 6.5% annual reduction in pathology spend year 1, and 8.5% reduction in pathology costs year 2, BUT half of the savings were lost through incentive payments

CASE STUDY 2

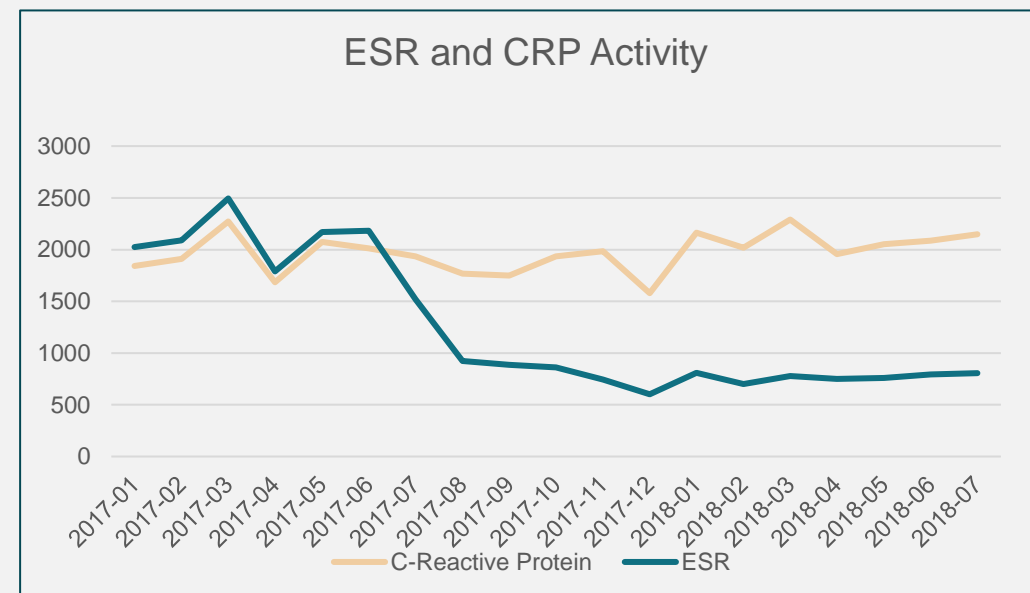
Choice architecture changes

Problem: Ordering out of habit	Choice architecture changes to order comms systems
Intervention:	Iron Studies removed from front page of GP order comms screens, but no hard block Test available by search only
Outcome	70% reduction in activity No patient harm



Advantages:	Disadvantages
Equity: Education Reaches all users	Dependent on use of electronic ordering system
Long Lasting effect	"Pop-up" fatigue
Hard stops can be implemented	
Savings retained	

Problem: Uncertainty on best practice	Choice architecture changes and education inserted into order comms
Intervention:	Educational message added explaining appropriate testing Test removed from main GP order comms screens. Test available by search only
Outcome	60% reduction in ESR testing volumes without increase in CRP volumes

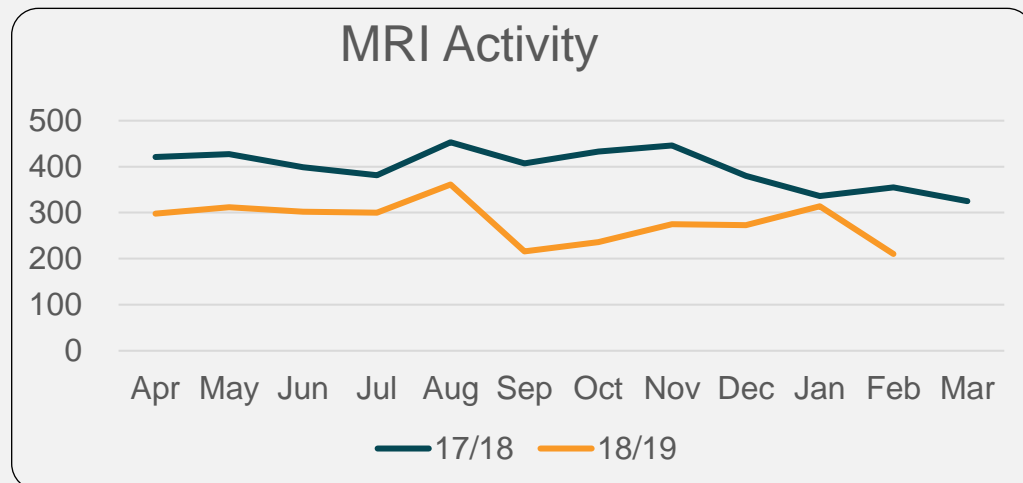


Result: 4% annual reduction in pathology spend despite scheme starting month 4

CASE STUDY 3

Hard Stops in Order comms systems, audit

Hard stops on specific tests	
Intervention:	GPs blocked from ordering MSK MRIs Redirection to MSK services Central Audit Feedback and education for GPs circumnavigating system
Outcome	30% reduction in overall MRI activity



- Advantages:**
- Equity: long reach
 - Full scale effect
 - Long lasting effect
 - Removes “click-through” option
 - Education on alternatives
 - Better Patient outcomes

- Disadvantages**
- Only possible if alternative pathways in place
 - Perceived loss of autonomy – requires attitude change
 - GPs circumnavigating system with paper forms
 - Need to have a “work-around” for special cases

This initiative was part of a wider, pathway change.

Whole Pathway changes	
Intervention:	All MSK referrals for MRI Imaging, as well as Pain, Rheumatology and Orthopedics OPD referrals were routed through a single point of access managed by Extended Scope Practitioners
Outcome	£2 million annual saving Decreased referrals to secondary care Increased conversion rates on referrals Decreased invasive procedures Better patient outcomes

Result: 35% annual reduction in annual MRI spend

DEMAND OPTIMISATION SUMMARY



Behaviour change models are necessary to change requesting patterns in primary care.

Simple choice architecture changes and nudges can be used to significantly alter requesting patterns and reduce unnecessary testing compared to other demand optimisation strategies

Combinations of strategies provide best opportunity to change behaviours

Strategies should involve whole system changes for better patient outcomes and consistency in care



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