Improving practice—the Hospital Pharmacy Initiative revisited

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The Hospital Pharmacy Initiative was a £12 million scheme introduced in England in 2003 and aimed at improving antimicrobial prescribing. Although significant successes have been claimed for the scheme, there is evidence which demonstrates that the untargeted and essentially undirected investment where no clear objectives were set has resulted in extremely variable developments with arguably minimal gains attributable to the programme. This contrasts strongly with the Scottish approach where form and function has been detailed with a focus on service sustainability in the ongoing challenge of improving prudent antimicrobial prescribing.

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Challenges in prescribing

Two of the key challenges stimulating and perplexing current clinical practice are how to improve antibiotic prescribing to reduce waste and minimize resistance pressures and how to achieve and sustain the introduction of improvements in clinical practice.

In June 2003, the Chief Medical Officer announced a medium-term action to help National Health Service (NHS) staff in England in the fight against healthcare-associated infections by funding hospital pharmacists to the tune of £12 million over a 3 year period. The intention was to enable pharmacists to monitor and control more carefully the use of antibiotics. Other than stipulating that the money was to be allocated to Primary Care Trust budgets and that Strategic Health Authorities were to monitor the use of the funds under the overall guidance of the Specialist Advisory Committee on Antimicrobial Resistance, the Department of Health was silent about exactly what was to be done, by precisely whom and to what specific measurable ends. Chief Pharmacists were subsequently encouraged to focus on developments to promote prudent antibiotic use and monitoring of antimicrobials by concentrating on key themes including clinical pharmacy services in areas of high antibiotic use, antibiotic use in surgical prophylaxis and children, infection control and developing evidence-based antibiotic prescribing policies.

The Hospital Pharmacy Initiative in England

At 2 years into the programme, Wickens and Jacklin have recently published an assessment of the scheme which became known as the ‘Hospital Pharmacy Initiative’ (HPI). Their conclusions were positive. The HPI was credited with improving interaction between Pharmacy and Microbiology/Infectious Diseases departments and with achieving significant reductions in antibiotic acquisition costs. It was recognized that further work was needed to fully evaluate the impact of the HPI on clinical and microbiological outcomes.

It is informative that the results were based on a 68% reply rate to the questionnaire, within which almost 10% could not describe how the funding had been used. The detail of the responses shows that there were three main fields of endeavour, namely, work on formularies and prescribing guidelines, antimicrobial education and advisory services and surveillance of anti-infectives and organisms. For the first of these, over 80% of respondents reported progress in antimicrobial formularies, guidelines and surgical prophylaxis policies, but in over two-thirds of responses, these achievements were assessed as independent of the HPI. Other than pharmacist education, all other response rates were <80% with significant components not attributed to the HPI. The outcome measures evaluated in the study were drug acquisition costs, the volume of antimicrobials used and inappropriate antimicrobial prescribing. In each case, assessment of the outcome was reported from <80% of respondents and benefit for each element was described in <50% of returns. No analysis of multiple delivery of success was presented. These data can, therefore, be interpreted as demonstrating a lack of focus and targeting of investment. There is clearly great variability in engagement and delivery. Arguably much would have been achieved without the HPI funding. It will be a matter of opinion as to the overall assessment of the HPI, but the above cannot be described in any sense as an outstanding performance.

The Scottish Antimicrobial Prescribing Policy and Practice Group

With the devolution of health to the different national arrangements within the UK, it is interesting to compare the approach
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In Scotland where recommendations for good antimicrobial practice in acute hospitals were published in August 2005, this work was commissioned by the Scottish Consortium of Area Drug and Therapeutics Committees and demonstrated the wide participation and ownership of this agenda within Scotland. The focus in Scotland has been different and has concentrated on specific issues. It has established and defined structures and lines of accountability to deliver prudent antimicrobial prescribing. The requirements for minimum data sets for monitoring antimicrobial resistance patterns and prescribing quality were set as were the basic needs for performance indicators and the key areas for acute hospital antimicrobial policy and audit. The Scottish Executive then pump primed, to the order of £1 million, the implementation of this initiative by giving money for a number of years against key posts, at the same time requiring a commitment from the provider Boards to fund the ongoing delivery of these roles. This is at variance to the approach in England where it is estimated that up to one-third of the presently funded positions may disappear at the end of the 3 year HPI scheme. The Scottish programme emphasized the need for multidisciplinary involvement and set up its structures accordingly. HPI had a flat delivery through pharmacy departments where outreach rather than inclusion was the order of the day. This was arguably an unreasonable burden of expectation to place on pharmacists in what is clearly a major multidisciplinary and organizational challenge. The approach in Scotland has therefore been very much about detailed form and function with a concentration on the sustainability of the delivery of the work needed in the battle to improve prudent antimicrobial prescribing. With the Scottish programme only just launched, it is too early to assess any outcomes from it.

Improving prescribing practice

The validity of introducing the HPI investment programme without clear, specified, measurable targets was a step that fatally undermined the intentions of the scheme and predictably led to the sporadic, partially successful and uncoordinated results reported. The establishment of measurements is absolutely essential for any initiative that is intended to improve patient care. The characteristics of measurements for improvement are simple and intuitive. They should enable and motivate the team involved to understand the extent and nature of the issue and should facilitate the demonstration of progress after interventions have been introduced. Within antibiotic prescribing, several assessments have recently been made into effective interventions. It has been shown that interventions to improve hospital antibiotic prescribing are successful in reducing antimicrobial resistance or hospital-acquired infections, e.g. limiting the use of certain antimicrobials will reduce the prevalence of resistant Gram-negative bacteria and Clostridium difficile-associated diarrhoea. The foundations for these steps to be effective rest in prospective audit with intervention and feedback combined with formulary restrictions delivered through high impact activities that include education and guidelines. The evidence is that guidelines alone, without enabling and reinforcing actions, are insufficient to change clinical behaviours. It is also known that the most effective interventions are multifaceted, rather than single engines of change. As the literature that these reviews are based on was broadly available at the time of the introduction of HPI, it is regrettable that key-selected interventions were not part of the requirements of the scheme. Equally, although some of the interventions during the life of HPI may be considered as single investments, e.g. establishing antibiotic consumable monitoring programmes, it is unclear how organizations are to carry forward the continuing needs of the maintenance and development of the prudent antimicrobial prescribing activities.

The way forward

Any programme that spends £12 million should expect to show some benefit. Without the ability to measure outcomes, it will not be possible at the end of the HPI to make an assessment about clinical or cost effectiveness. However, arguably, the HPI was set up to fail to deliver all that it could as there was an absence of direction to key, evidence-based actions. In a world where it is recognized that ongoing, targeted, multifaceted interventions are required to achieve and sustain improvements in clinical prescribing practice, the failure of the HPI to look to the future is both disappointing and worrying. This must be addressed and as a matter of priority since any failure to plan for the future may result in not only lost opportunity to maintain and improve prescribing but also the haemorrhage of the body of expertise that has been developed in the service as a result of HPI. Further research is required to identify the interventions in this arena that are the most effective. How to deliver these with the greatest impact using innovative methods also requires further study. The evolving democracy within the UK means that the NHS is no longer a homogeneous organization across the nation, but is developing differently within the disparate parliaments. This leads to solutions that are not the same being applied to common issues. Herein lies a potential advantage as the impact into the future of the above diverse Scottish and English approaches, with the latter starting 2 years before the former, to this key concern will allow shared learning and an assessment of best practice.

Transparency declarations

None to declare.

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