

Avon, Gloucestershire and Wiltshire



Strategic Health Authority

Workforce Development Confederation

Orthopaedics: Key Issues for Workforce Planning

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EXECUTIVE SUMMARY

This report has been commissioned to support the Local Delivery Plan with innovative service and workforce approaches to orthopaedic services. The purpose is to highlight issues for a workshop on this topic. A Glossary of Terms is provided in Appendix 3.

Key issues to address

- ? *What if any is the anticipated increase in orthopaedic conditions that could appropriately and safely be handled on a day surgery basis?*
- ? *Has an impact assessment of the three treatment centres (TCs) on demand, staffing and training for existing NHS trusts been conducted?*
- ? *What might be the implications of PBR (Payment by Results) for acute trust departments, TCs and independent providers across AGW? What steps can be taken to ensure that case mix is adequately reflected in payments?*
- ? *Are adjustments for case complexity adequate?*
- ? *What will happen to trusts with below or above tariff costs after the transition period?*
- ? *How much more expensive for PCTs will PBR be compared with existing contracts with acute trusts?*
- ? *Could capacity in acute trusts be underused, as is reportedly the case currently in some TCs because PCTs have insufficient funds?*
- ? *What if any is the anticipated increase in orthopaedic conditions that could appropriately and safely be handled on a day surgery basis?*
- ? *What are best alternative referral routes from GPs?*
- ? *How can consultants, GPs and extended scope physiotherapists work more effectively together.*
- ? *What is appropriate role differentiation for out patient triage as undertaken by ESP's, associate specialist and staff grade doctors?*
- ? *Could ESPs, appropriately trained be further involved in pre and postoperative assessment and follow up of patients?*
- ? *What is the scope to develop further extended scope physiotherapy (ESP) roles?*
- ? *Would it be possible to safely and effectively reduce the number of patients added to the list by introducing some of the measures identified in national pilots, for example:*
 - *increasing GP's range of referral routes?*
 - *checking whether patients were willing to have surgery or were seeking alternative interventions to manage their condition?*
- ? *Conducting preoperative assessments of fitness six weeks before surgery or at the point of being booked for surgery.*

- ? *Increasing capacity is one important way to meet the 6-month wait target. Some PCTs have reportedly not had funds to purchase all the capacity they require from e.g. Treatment Centres. How will this affect the 6-month target?*
- ? *What scope is there to pursue further day-of-surgery admissions, pre admission ESP triage and fitness clinics to reduce cancellations, and establish discharge and support teams to care for patients at home, and other measures?*
- ? *Is there scope for the number of orthopaedic patients treated on a day care basis to be safely increased?*
- ? *If so, what would need to happen to support this?*
- ? *Is there further scope for minor procedures e.g. carpal tunnel decompression to be carried out by extended scope nurses as day care procedures or in primary care?*
- ? *What are training and staffing implications?*
- ? *To what extent is the impact of emergency and trauma work taken account of in examining the 6-month wait target?*
- ? *What is the incentive to invest in trauma work when the main pressure is on waiting list targets?*
- ? *Is there scope to improve theatre efficiency further by adopting or extending some of the suggestions from national practice or those already in place locally?*
- ? *Are patient lists and consultant specialisms and establishment matched?*
- ? *Is there scope to change the skill mix in theatres, for example use of surgical assistants to position limbs, close wounds, etc?*
- ? *In one site there were insufficient trained theatre and ward staff. What are steps needed to train and backfill?*
- ? *Would introducing new roles and/or increasing the numbers of those already established e.g. ESPs, ESNs (Extended Scope Nurses) and GPwSIs contribute significantly to solving some of the difficulties experienced in parts of the region?*

1. INTRODUCTION

Background

The Avon, Gloucester and Wiltshire Workforce (AGW) Development Confederation commissioned Shared Solutions Consulting to produce a report to assist the LDP workforce group on Orthopaedics.

This paper sets out issues to be considered in developing and modernising Diagnostic services across Avon, Gloucester and Wiltshire Strategic Health Authority, and the implications for workforce development. The objective is to identify the future workforce challenges, such as a much more competitive labour market that will have a profound impact on the NHS's capacity to recruit and retain staff. In addition, issues that pertain to key staff groups for this care group will be identified. National and local examples of good practice are cited, where services have been developed to meet changing needs and demands, in order to stimulate discussion about options for the future.

In December 2003 the National Orthopaedic Programme published its Six-Month Wait Priority Review. It identified a range of problems that were contributing to orthopaedics accounting for over a third of the over six month waits and in some trusts over 12 months. The difficulties are seen to be partly those of capacity and partly the need to change ways of working. This is an increasing and recurring theme with an economic analysis of healthcare suggesting that the present pattern of provision was not sustainable. Generally there is seen to be a need to shift provision to prevention and early intervention, patient self management and a stress on healthier lifestyles, combined with timely and appropriate use of primary, secondary and tertiary healthcare. (Wanless, D. 2002 in RCN: The Future Nurse, 2004)

National orthopaedic project

The NOP Support team was been engaged with Swindon, Bath and Bristol orthopaedic services during the period of producing this report. The three reports of identify some similar themes, including the relative strength of planning and management of services, referral and demand management processes, capacity and capacity use issues, balance between elective and trauma work, relationships and teamwork, financial problems, and for Bristol and Bath particularly, the impact of a teaching remit on case mix and complexity. Action plans based on the reports are being written.

Predictably, there are mixed views about the exercise, including for some trusts, scepticism as to the accuracy of all the data produced for the project, and the focus on secondary care in NHS trusts, largely excluding the role and performance of primary care and the treatment centres.

It appears that there are a mix of capacity issues and the changes or enhancements to existing working practice and systems that would be needed to improve the situation locally.

2. NATIONAL CONTEXT

Targets

Capacity and Waiting lists

Around a quarter of patients on the overall NHS waiting list need orthopaedic surgery. Historically, orthopaedics is a speciality with the largest share of over six month waiters (35 per cent of the total) and 9-month waiters (38 per cent). Many of these are elderly patients whose quality of life is affected by their condition which causes immobility, pain and discomfort. In 2003, the DoH announced a £50m drive to eliminate long waits for NHS orthopaedic patients and boost capacity in the NHS, so that an additional 41,000 patients a year could receive surgery. The funding was to be invested in NHS orthopaedic services including treatment centres and on modernising theatres, buying new equipment or upgrading existing facilities. The goal was that these extra resources would deliver shorter waiting times and ensure that no orthopaedic patient is waiting for more than six months for treatment by December 2005.

A further measure is the proposal that 15 per cent of capacity will need to be made available by the independent sector, partly as this is seen by government as the only way to increase capacity sufficiently rapidly to meet the waiting target.

The identified shortfall in capacity varies depending on whether continued levels of outsourcing are taken as constant or not. Measures to bridge the capacity gap include:

- increase the rate of outsourcing
- reduce the number of patients being added to the list
- increase the number of theatre sessions available each week,
- increase theatre productivity
- reduce length of stays to increase bed availability

Day surgery

Day surgery is another contributor to the Department's bid to provide faster, more efficient care for patients and bring down waiting times. This is seen as one of the key factors in meeting the government's undertaking to no one waiting for more than six months for treatment by 2005. Around 50 per cent of hospital operations are undertaken as day surgery at present, but while some hospitals achieve over 60 per cent, others only achieve half of that or less. A report by the Audit Commission found that the NHS could increase the number of day surgery cases by around 120,000 a year. Of the 25 basket procedures identified by the Audit Commission and the British Association of Day Surgeries proposed "trolley" for procedures which are suitable for day surgery in some cases, it is only a small number which fall within orthopaedics. It is also likely to be the case that with many orthopaedic patients being elderly people, there may be home and social circumstances, particularly if they live alone which may make them unsuitable for day surgery.

? What if any is the anticipated increase in orthopaedic conditions that could appropriately and safely be handled on a day surgery basis?

Treatment centres

Treatment centres, either provided by the NHS or by the independent sector were designed as one of the measures to increase capacity to assist meeting of the six month wait target for treatment, to be achieved by December 2005. By October 2004, 27 had been opened. One of the roles envisaged for treatment centres is to provide for short stay in-patient specialities such as orthopaedics, handling elective treatment, and with no emergencies, avoiding cancellations for non-clinical reasons.

One of the service advantages that was anticipated was for patients to be seen and assessed at one session, offered appointments within a few weeks, and possibly faster discharges because of more concentrated availability and interventions by physiotherapists and occupational therapists. (Ravenscourt Park Hospital TC, *What staff say about treatment centres*, DoH)

In the AGW area there will be three centres operating in the area by summer 2005. Weston which provides orthopaedic capacity for the Bristol area, Swindon opening in early 2005, and Shepton Mallet a private centre opening later in 2005. The latter will not have ITU facilities and will therefore only be taking fit patients. There are concerns that this will leave Royal United Bath with sicker patients with more complex conditions which it is thought is not sufficiently reflected in payment by results. The new Swindon treatment centre will provide needed additional capacity and has its back up facilities, as it is on the hospital site.

Because treatment centres provide services across traditional organisational boundaries, this could affect patient flow into treatment centres. In London, patient choice, the mechanism to refer patients between secondary care providers, relies on a central team taking referrals from primary care and brokering them into secondary care. The central function was seen to detract from a treatment centre's relationship with their PCT. Outside of London, where patient choice had not commenced, some treatment centres felt the difficulties they experienced with their local PCT were due to the dramatic period of change in these relatively new organisations. Generally, poor stakeholder engagement was mentioned as a potential risk hindering the successful introduction of treatment centres. Some had problems securing revenue from commissioning contracts, perhaps because PCTs wanted to wait and see how the proposed treatment centre would fit in to their network of local service development.

The biggest risk perceived to the success of treatment centres on acute sites, was not having theatres or beds ring-fenced from existing operational activity, so that when emergencies arrived in the acute section of the trust, annexing treatment centre beds, is an option. (*Diagnosis and treatment centres – Lessons from the pioneers*, The Modernisation Agency NHS, 2003)

In practice there are a number of issues being raised in the AGW area including:

- the need to address current capacity
- the need for additional capacity provided by TCs
- TCs taking routine operations of fit patients, leaving acute trusts with a heavier load of complex surgery on less fit patients with financial and length of stay implications
- the unpopularity of TCs with patients given recent adverse media reports

- the impact of TCs on private practice
- whether or not PCTs can afford to buy capacity at TCs (there were reports of one PCT not being able to purchase beds at Weston even though it had capacity, and that Weston TC is looking to Wales for patients)
- the impact on acute trust activity and finance, at least the short term, when choice at referral is introduced and TC waiting lists may be considerably lower than those of acute trusts.

Staffing Treatment Centres

Staffing will either be NHS staff on NHS terms and conditions or employed by the independent sector on their terms and conditions, or possibly secondments from the NHS to independent sector treatment centres.

The Modernisation Agency has devised a workforce/HR checklist of issues that need to be considered when planning staffing for treatment centres, and the impact on other NHS providers. It is suggested that all treatment centre stakeholders should be engaged in planning workforce, including trust clinicians and managers, PCT managers, as commissioners or providers, social care, the SHA, WDC, patient and carer representatives and others.

Treatment Centres can offer staff a more predictable working day and therefore may be particularly attractive to staff for whom family friendly policies are important. However, staff who already work in dedicated elective teams may find this less of an enticement. The impact of successful recruitment and retention by treatment centres could have an adverse effect on other NHS and independent providers

If most routine surgery for fit patients is redirected to TCs, rotas for doctors in training will need to be extended to incorporate TCs.

? *Has an impact assessment of the three TCs on demand, staffing and training for existing NHS trusts been conducted?*

Constraints on capacity

Working Time Directive

The WTD will reduce the hours all staff can work but will particularly impact on hours worked by junior doctors. There are a number of initiatives designed to hospitals in a better position to meet the WTD, which is also relevant to out-of-hours provision.

At Kettering Trust there has been a merger of SHOs in ENT, trauma, orthopaedics and general surgery to provide cross service cover for emergencies. The role of trauma and orthopaedic nurse practitioner has been developed to reduce the work intensity at night. The introduction of the trauma nurse practitioner has resulted in faster transfers from accident and emergency to wards.

At North West London Trust, medical and surgery emergency patients are assessed in the same unit by a team including medical staff from A&E, medicine and surgery. Surgical nurse practitioners replace SHOs at night. (Changing the workforce programme, Working Times) (www.modern.nhs.uk/workingtime)

At North West London Hospitals Trust, medical and surgical patients will be assessed in the same unit by an emergency team comprising doctors from accident and emergency, medicine and surgery.

Hospital at night

The hospital at night project aims to redefine how medical cover is provided in hospitals during out-of-hours periods. The project requires a move from cover requirements defined by professional demarcation and grade, to cover defined by competency. The model consists of a multidisciplinary night team, which has the competences to cover a wide range of interventions, but has the capacity to call in specialist expertise when necessary. This is in contrast to the traditional model of junior doctors working in relative isolation, in speciality based silos. The project advocates:

- Supervised multi speciality hand over in the evenings.
- Other staff taking on some of the work traditionally done by junior doctors.
- Reducing unnecessary duplication of work either by better coordination and reducing the multiple clerkings and reviews.
- Moving a significant proportion of non-urgent work from the night to the evening or daytime.

Junior Doctors training

Junior staff rotations are increasing to three, four-month placements rather than the previous six-month rotations. This increases the supervisory workload for senior doctors, taking them away from other duties.

Private practice

NOP regarded private practice as being one of the contributory factors in orthopaedics being the specialism facing the greatest challenge in meeting the 6-month wait target. Lengthy waiting lists undoubtedly have contributed to patient's willingness to opt for private surgery. It is unclear what the impact of TCs and NHS funded private contracts e.g. with Nuffield will impact on this.

Costs

Payment by results/reference costs

PCTs have commissioned services with Foundation trusts through Payment by Results since April 2004, and this will apply to other trusts by April 2005. This change may be particularly important in a health economy like that around Bristol, which faces financial difficulties.

It was hoped by Government that as a result of the introduction of payment by results (PBR), PCTs will be in a position to commission more responsive services, and providers will provide services in line with national needs, inspected by the CHI. Forty-eight healthcare resource groups will be covered by the national tariffs. There are plans that these should be adjusted for high costs resulting from providers treating more patients with complex needs. It is anticipated that the introduction of standard charges for procedures will create some volatility amongst providers, with adverse consequences for providers with costs higher than the tariff, and a more positive impact on those providers with lower than tariff charges. A three-year transition has been introduced before the system is fully implemented from 2005/6 to 2007/8 to ease the impact and

give trust a chance to adjust. TCs and the independent sector will be included in the tariff system at some point.

The impact of PBR may be unexpected even where hospital charges are at the tariff level for a procedure, if PCTs have to pay tariff levels for a number of procedures, which end up higher than some existing contracts. PCTs may find they cannot afford the same number of procedures under the PBR scheme. Some independent providers used by local trusts e.g. Nuffield currently provide contracts that represent free activity to PCTs. If and when these contracts end, presumably PCTs will have to pay more for the same number of procedures.

Trusts will need to ensure coding is accurate, as coding errors will affect income. Yet there are significant coding differences between health care resource groups and these tend to be greater in HRGs that group together a large number of procedures. If within an HRG trusts routinely treat patients who require more costly procedures they will be penalised financially.

Reference cost data show a substantial and fairly constant variation between trusts. Reference costs have risen over time despite the fact that length of stay, regarded as a significant cost driver has reduced, and a large increase in NHS funding. The reason appears to be that the money has not been spent on increasing thought put. Instead the cost of inputs has increased and there has been an increased in quality initiatives such as reducing waiting times. The cost of such initiatives is included in the calculation of reference costs but the value is ignored because it does not contribute to throughput.

One study found that there was a large overlap in levels of efficiency for a large majority of English trusts with only 10 trust below the others in terms of measured efficiency, however most of these were tertiary centres specialising in orthopaedics, neurosurgery or cardio thoracic surgery. The researchers concluded that their apparent poor efficiency may be due not to inefficiency but the imprecise measurement of the complexity of the treatment these centres offer. There may be good reasons why trust incur different costs for apparently similar treatments that may not be adequately captured by the payment system (*Health Service Journal*, A Street, K Lawson, York University. 8 January 2002)

? *What might be the implications of PBR for acute trust departments, TCs and independent providers across AGW? What steps can be taken to ensure that case mix is adequately reflected in payments?*

? *Are adjustments for case complexity adequate?*

? *What will happen to trusts with below or above tariff costs after the transition period?*

There is not a level playing field currently for providers given the nature of some contracts with the independent sector, or costs for TCs and NHS trusts. What will the impact be when independent contracts end and when TCs and the independent sector attract tariff payments.

? *How much more expensive for PCTs will PBR be compared with existing contracts with acute trusts?*

? *Could capacity in acute trusts be underused, as is reportedly the case currently in some TCs because PCTs have insufficient funds?*

Patient Choice

From December 2005, patients needing elective treatment will be offered a choice of four or five hospitals once their GP has decided a referral is required. These could be NHS trusts, foundation hospitals, treatment centres, private hospitals or practitioners with a special interest operating within primary care. This is called 'choose and book'. As well as choosing where they go, patients will be able to choose when and appointments can be made at the GP surgery, using an electronic booking system.

Since August 2004, all patients waiting longer than six months for an operation are offered an alternative place of treatment called 'choice at six months'. In a study of offering choice to patients in primary care for routine surgery, patients were found to be most likely to consider ease of access and quality of care as more important than waiting times in making their choice. Most patients still opted for their local hospital. (Department of Health (2004). R Taylor, M Pringle, C Coupland, for Dr Foster and Nottingham University.)

This may cause problems if patients choose a local hospital thereby increasing its waiting list, rather than a TC or the independent sector which although sometimes costing more, at least eases waiting list targets. With Choice at referral starts, the shorter waiting lists anticipated for TCs may prove attractive. It may be predicted that when their waiting lists rise with increased in demand, waiting lists may equalise across all sectors and patients will revert to choosing their local hospital.

Locally, it is anticipated that choice at the point of referral may result in complex demand management problems as consultants have different specialisms, which choice of referral to an orthopaedic unit does not quite capture.

Patient choice is already having some unpredicted consequences particularly now that waiting lists are shorter than previously. Patients are tending to choose local hospitals and are less prepared to go to more distant TCs or travel to London or other centres historically used for outsourcing. This may impact on some private providers, where there may need an added incentive to encourage patients to opt for them, otherwise waits will start rising again as capacity will be insufficient at local hospitals. Some of the issues to address include:

- ? Health improvement Plan
- ? Foundation trusts?
- ? Independent providers
- ? GP commissioning

3. ORTHOPAEDIC AND OPERATING THEATRE INITIATIVES

National orthopaedic programme

The difficulties identified nationally by the programme were as follows:

- A deficit in management capacity and information systems in this area.
- Complex cases.
- Productivity decreasing with 70 per cent of patients seen at outpatients however not going forward to surgery.
- Private practice – surgeons earn significant sums even after full time NHS commitment.
- Under - capacity and under - used capacity.
- High percentage of emergency admissions affecting elective surgery.

The NOP Waiting Time Review suggested that capacity needs to be tackled through the optimal use of treatment centres, healthcare purchased overseas for patients, and the use of overseas teams. Its support programme focused more on improving systems and processes, working with staff experiencing particular difficulties in providing orthopaedic services. It developed work streams to examine:

- Demand management through referral management centres and clinical assessment centres
- Planning and performance management
- Capacity planning and commissioning
- Waiting list management
- Improving productivity
- Improving communication

To achieve the six-month waiting target, requires the involvement of the whole health economy, and an examination of the care pathway from primary care referral through to appropriate support at discharge.

The Orthopaedic Services Improvement Programme became the National Orthopaedic Programme team in 2003, also incorporating the work of Action On Orthopaedics and the Orthopaedic Services Collaborative. A Guide for clinicians, managers and service commissioners and 10 High Impact Changes was produced. Whilst stressing that all 220 hospital orthopaedic departments are different and that no one pattern of service provision will fit all, the guide identified a number of common difficulties and gave examples of trusts which had attempted to tackle these. It suggests that all local economies accurately map the patient pathway, avoiding anecdotal only evidence, as this may not be the key to that locality's difficulties.

From the pilots, a number of common problems were identified along the care pathway, as follows:

- 10 to 40 per cent of GP referrals did not require a surgical opinion,

- 5 to 30 per cent of GP referrals did not attend OP
- 5 to 15 per cent of patients did not want or need surgery
- 5 to 40 per cent of patients were not fit for surgery at the time of appointment and 1 to 5 per cent were unfit for surgery at the time of admission
- bed capacity was reduced because 5 to 15 per cent of patient discharges were delayed because of home circumstances and not their medical condition.

Thus there are three main phases of the pathway, where wasted effort and delay can occur. These are:

- The outpatient bottleneck.
- Patients being listed for surgery before they are ready
- Delays and bottlenecks in the admission and surgery process.

The pilot sites identified suggestions for tackling these three stages. In AGW, a number of these are already in place in some trusts, or being planned, however on a rather patchy basis. Other NOP proposals may be worth considering or spreading more widely where their introduction has been limited. What the proposals do not really address are some of the capacity problems and the impact of emergency work on elective work, which is perhaps a particular problem for Bath.

The outpatient bottleneck

Suggestions for improving this are as follows:

- Better information to GPs and patients about which pathway is best, given a set of symptoms.
- Agreed care pathways for common conditions/procedures such as back pain, joint replacement, knee pain and carpal tunnel syndrome.
- Where possible, PCTs to identify and develop GPs with special interests (GPwSI) in orthopaedics.
- Let GPs refer direct to other pathways e.g. extended scope physiotherapy (ESP), imaging, orthotics, podiatry, GPwSI and Clinical Assessment Centres.
- Reduce the amount of time that consultants spend in outpatient clinics compared with theatre, currently a ratio of 3 to 3, to a suggested better one of 2 to 4. Perhaps by using other professionals for initial referral and follow up outpatient appointment, with surgeons seeing more complex cases.

These approaches need clear agreement about clinical pathways and confidence in each professional's competence.

Research on the use of ESPs for GPs referral was conducted at Frenchay and Southmead Hospital. This was a randomised control trial of GP referrals of patients with muscular skeletal problems who were seen either by fellowship junior staff and clinical assistant orthopaedic surgeons or ESPs. The results showed no significant difference in outcomes of patients' measures of pain, functional disability and perceived handicap. The only significant difference was that patients were more satisfied with the ESP consultation. The costs for the patient, and PCT were the same, whereas for hospitals the costs were lower as physiotherapists ordered fewer x-rays and were less likely to refer for surgery. The physiotherapy intervention was more cost effective, but the cost of training the ESPs was not included in the study. The research interestingly identified

that more GPs thought their patients wanted surgery than was the case when patients were asked. (Carr, 2003)

For some less serious injuries resulting from falls, presenting at A&E, the following clinic has proved useful in some areas.

Multidisciplinary assessment clinic for falls patients

Clinics include staff from nursing medicine, occupational therapists and physiotherapists. This is for patients admitted to A&E because of falls. They are offered an assessment and education programme. (Pilot site progress report, 2003 – Changing Workforce Programme)

Waiting lists for elective treatment

At City Hospitals Trust in Sunderland, patients faced up to 24 month wait for elective knee treatment. The trust introduced the use of a specialist physiotherapist who screened all referrals to one consultant. It was then expanded to all consultants and GPs are asked to refer patients directly to the physiotherapist. The average wait has now been reduced to five months.

Case studies (NHS Magazine)

www.nhs.uk/nhsmagazine/archive/april03/feat9.asp

Local Issues

Referral

? *What are best alternative referral routes from GPs?*

Are extended scope physiotherapy triage services best employed by PCTs, sited in primary care nearest the point of referral, in secondary care, employed by the acute trust, where they are closer to consultant teams, or in both as in the Bristol area?

? *How can consultants, GPs and extended scope physiotherapists work more effectively together.*

Currently for example in Bristol, S&W PCT employs ESPs to provide an orthopaedic triage service for referrals where the GP is unsure that an orthopaedic referral is appropriate. There is also a secondary care triage service provided in the acute trusts. ESPs in the secondary setting receive a more intensive training, as they refer for some tests and may interpret some results. These two teams appear to have reduced the number of patients who need to be on surgery waiting lists.

Both sets of ESPs will provide soft tissue and joint injections, which reduces the number of patients seen by consultants in outpatient clinics, thereby giving a more timely response to patients and freeing up surgeons for tasks where their skills are best suited.

? *What is appropriate role differentiation for out patient triage as undertaken by ESP's, associate specialist and staff grade doctors?*

? *Could ESPs, appropriately trained be further involved in pre and postoperative assessment and follow up of patients?*

(See research on ESP triage at Frenchay and Southmead)

The training for ESPs is carried out on site. It is thought that the existence of the ESP role has encouraged retention and may aid recruitment in some cases.

? *What is the scope to extend ESP roles?*

Premature listings for surgery

Patients on the surgery waiting lists were removed before treatment either because they were unfit or did not want treatment. In the very worst cases in AGW, this is 20 per cent of such patients and 14 per cent for the whole of Bristol.

Steps proposed to reduce this percentage included:

- GPs to check with patients whether they are prepared to have surgery or wanted an alternative intervention.
- Clear criteria for offering surgery using a structured assessment.
- Early health assessment for patients who had been offered surgery.
- Reduction of separate waiting lists, with one for clinical priorities and the other to be treated in chronological order.
- Offering of fitness classes for patients prior to surgery.
- Conducting pre-operative assessments, which it is suggested are best conducted by nurses with possibly the involvement of physiotherapists, OTs and anaesthetists. These assessments to occur six weeks before admission, which hospitals have found reduce their postponement rate from 40 to five per cent.

Pre operative assessments

A number of trusts have taken measures to improve the efficiency of the pre operative assessment.

Postal pre operative assessment questionnaires are sent to patients before they attend pre operative assessment clinics. This saves time in the assessment process leaving more time to discuss the operation, pain relief and discharge arrangements. (Princess Alexandra Hospital)

The pre assessment team initiate discharge planning through hip and knee classes, liaising with ward staff and the discharge planning team. Integrated care teams from the borough councils join weekly meetings with hospital staff to ensure early discharge. (North Middlesex University Hospital)

Local practice and issues

At Swindon they are involved in improving a number of systems to try and ensure that patients are not prematurely put on the surgery waiting lists. GPs provide more information about patient's health status; patients are sent a questionnaire about their health before being placed on the awaiting list, when they attend outpatients' clinics. There is a pre admission clinic, a month before surgery and a partial booking system with patients not being finally confirmed for the waiting list until they are fit for surgery.

When patients are offered choice at 6 months, they may be given health questionnaires then to ascertain fitness for surgery or nearer the time. However, this is only effective if there is proactive fitness improvement programme to improve fitness.

Reducing the numbers on the waiting lists

A number of initiatives have been commenced nationally and locally and it is possible that there is scope to extend their use.

? Would it be possible to safely and effectively reduce the number of patients added to the list by introducing some of the measures identified in national pilots for example:

- increasing GP's range of referral routes?
- checking whether patients were willing to have surgery or were seeking alternative interventions to manage their condition.

? Conducting preoperative assessments of fitness six weeks before surgery or at the point of being booked for surgery.

(Over 50 per cent of cancellations for surgery were due to patients being unfit, requiring more tests or not wanting surgery.) This suggests that the waiting list is not a true reflection of the number of people who want surgery, require surgery and are fit to undergo surgery.

Delays in admission and surgery processes

Whilst theatre performance is partly dependent on the efficiency of the pathway up to that point, and bed availability depending on effective discharge arrangements at the other end, there are a number of steps that can be taken to improve effectiveness of theatres.

Theatre time and surgeon time are the scarcest resources. It is suggested that all other resources should be subordinated to these and coordinated around them.

The main causes of delays were found to be:

- Bed availability or bed planning.
- Avoidable length of stays – patients admitted a day before surgery and/or long post operative stays.
- Poor coordination of processes with key staff or equipment unavailable, start and finish of theatre times not communicated effectively, length of theatre sessions not matching the case mix, delays during the theatre list and extended time between cases.

Suggestions to improve the above included the following:

- Measures to ensure that staff and equipment are available for surgery and planning annual leave at least six weeks ahead.
- Involve ward and theatre staff in planning admissions so that there is a match between surgery lists and patients requiring a bed and bed availability.
- Admitting on day of surgery.
- Effective communication to theatre staff of start and finish times.

- Minimise delayed starts and down time between cases, using surgeon's assistant to position limbs and close wounds.
- Consider using other disciplines to undertake surgery – nurse theatre practitioner may perform selective minor procedures such as carpal tunnel surgery; podiatric surgeon may perform forefoot surgery.
- Develop trauma specific approaches e.g. fast track patients with obvious fractured neck of femur, admitting straight to the ward, dedicated trauma theatre and trauma team freed up for elective commitment.

Working practice of consultants

St Helens and Knowsley Trust examined the different working practices of consultants and as a result introduced a new system whereby consultants work to a common streamlined patient pathway. This has also had the effect of reducing average hospital stays from 12 to 7 days.

The above may work better for routine surgery and may be less effective for complex procedures where consultant specialism needs to be considered.

Improving operating theatre performance

Planning and management

Effective planning and management is needed to ensure the optimum use of theatre capacity, maximise performance and avoid cancellations. It is suggested that there needs to be a theatre management group with sufficient authority, appropriate membership and leadership to work with all parts of the system to ensure best outcomes.

The hospital holds a weekly multi disciplinary meeting including the clinical director for anaesthetics, surgery, theatre manager, booked admissions manager, pre assessment manager, secretaries and information person. The team looks at late starts and cancellations for the last previous weeks list and action to be taken. The next two to three weeks templates for theatre lists are checked and sessions reallocated where possible. (North Manchester Healthcare)

Performance indicators

A number of performance indicators are regarded as particularly useful in assessing theatre work, including cancellations, sick leave, the elective emergency ratio and the number of emergency procedures performed out-of-hours. Tackling cancellations was seen to be particularly important with 40 per cent of elective operations cancelled on day of surgery because of bed unavailability.

Cancellations

Princess Alexandra Hospital opened a 10 bed, same day admission ward to support reductions in cancelled operations. A proportion of surgical patients admitted on the day of operation improved by 10 per cent.

A cancelled operations coordinator has been appointed to manage the cancelled operations database and monitor and report on the cancellations to the general managing clinicians. The post holder ensures that all patients who are cancelled on the day of surgery are rebooked within 28 days (Princess Alexandra). This is happening in AGW Trusts.

To improve the patient experience and tackle other delays, Southern Derbyshire acute trust appointed a designated trauma nurse who coordinates all aspects of the orthopaedic trauma list, patient, ward, surgeon and theatre. The trauma nurse communicates changes to the theatre list to relevant staff. This improves utilisation and organisation, and avoids the need to starve patients for unacceptable lengths of time.

Matching beds and theatre lists

For elective inpatients, where trusts have adequate bed capacity, or at times of the year when emergency pressures are low, theatres may be the constraint. In these situations, it may be important to make maximum use of theatre resource and plan lists to use 85 per cent of capacity. It is not possible to plan for 100 per cent usage, to accommodate emergencies for which there are no dedicated slots in AGW.

Case study: Managing and monitoring theatre usage

Service level agreements are established and reviewed annually and these include list start and finish times. Action is taken by the theatre management, in collaboration with bed holding specialities, to identify reasons for overruns, with a view to planning lists more effectively or allocating additional operating time where possible. (Leeds Teaching Hospitals)

The orthopaedic theatre publishes information on list utilisation on notice boards within theatres. This has encouraged healthy competition to improve. (The University Hospital, Coventry and Warwickshire)

Emergencies

Where there is high theatre utilisation of daytime emergency and trauma lists, this may be an indication of insufficient capacity, in which case additional theatre time needs to be made available.

Case study: Nurse assessment

A specialist nurse clinically examines and assesses all emergency patients prior to surgery to ensure that optimum pre operative health is achieved. Working with the anaesthetic and surgical teams, the nurse completes further investigations and initiatives a treatment plan. The nurse coordinates the patient's care process within existing hospital and theatre capacity. Strategies used include redistributing cases from emergency to elective theatre schedules, day case emergency surgery and "booking" parts of the emergency care process. (Good Hope Hospital)

At 9.00 pm the trauma team decide the first patient for the next mornings trauma list. The next day, the trauma team leader joins the morning round, then the order of cases decided and the necessary resources made available e.g. equipment and staff skill mix. Cases that can be added to the elective list are identified. The trauma list takes place from 9.00 am to 9.00 pm with dedicated anaesthetists and there is no out-of-hours operating except for NCEPOD1 (trauma) cases. (The National Confidential Enquiry into Patient Outcome and Death) (The University Hospital, Coventry and Warwickshire)

Medical staffing

In 2001-2, 24 per cent of operations were cancelled because of surgeons' or anaesthetists' unavailability. It was suggested that to tackle this a minimum of six weeks

notice for annual leave is required and there needs to be an establishment sufficient to cover the non clinical as well as clinical commitments expected of consultants. A number of trusts have now introduced a six weeks minimum period for giving notice of leave intentions and identified the maximum number of staff who can be on leave at any one time.

Theatre staffing

Trusts are looking to at recruiting to new roles such as Surgical and Anaesthetic Practitioners and have introduced a number of measures to improve recruitment and retention of staff.

Cases studies: cross cover and pay

All qualified staff within the department – nurses, ODAs and ODPs are paid the same rate and have the same terms and conditions. (South Derbyshire Acute Hospitals)

The trust has increased the number of multi skilled staff. OPDs and nurses are qualified to cover recovery and anaesthetic roles. Some staff develop general skills and other specialist skills. (Central Manchester and Manchester Children's University Hospitals)

A self-rostering system ensures adequate cover for night duty. Guidelines on numbers and skill mix are provided and staff allocate themselves for the nights they want to work. This has proved very successful as staff share out duties appropriately and covering absence is less of a problem. (Royal Devon and Exeter Hospital)

Local issues

At Swindon there is an orthopaedic booking team. There is also an orthopaedic clinic team, which included primary and secondary care, and the latter is likely to take a lead in coordinating the activities for development.

? Are versions of these in place at all sites and if not, would they assist in the effective booking of surgery in conjunction with the other services required e.g. beds and equipment, and the development of orthopaedic services across the primary and secondary care and social care?

In Swindon, trauma and elective beds are on separate wards with a MRSA protected environment on the elective ward. This seems a very useful measure, but it seems unlikely that there is sufficient capacity, for example at Bath, to have ring fenced beds for elective and emergencies as at RUH there was reportedly a shortage of beds with medical patients often taking orthopaedic beds.

? Increasing capacity is one important way to meet the 6-month wait target. Some PCTs have reportedly not had funds to purchase all the capacity they require from e.g. Treatment Centres. How will this affect the 6-month target?

As there is little point booking surgery lists if there are no beds, the issue is how to create bed capacity.

? What scope is there to pursue further day-of-surgery admissions, pre admission ESP triage and fitness clinics to reduce cancellations, and establish discharge and support teams to care for patients at home, and other measures?

This is where orthopaedics has to be seen as a whole system, including social care, primary and secondary healthcare. This will be particularly the case for older patients, living alone and with complex conditions.

Shift of minor surgery to day or primary care

In some areas the rate of day care surgery is a little below the national average of 48 per cent.

? *Is there scope for the number of orthopaedic patients treated on a day care basis to be safely increased?*

? *If so what would need to happen to support this?*

? *Is there further scope for minor procedures e.g. carpal tunnel decompression to be carried out by extended scope nurses as day care procedures or in primary care?*

? *What are training and staffing implications?*

Elective/trauma balance

? *To what extent is the impact of emergency and trauma work taken account of in examining the 6-month wait target?*

Bath appears to have a particularly adverse trauma/elective ratio. Evidence from the Operating Theatre Improvement Programme suggests that if theatres are taken up for most of day hours on trauma work, there is insufficient capacity and this needs somehow to be increased.

? *What is the incentive to invest in trauma work when the main pressure is on waiting list targets?*

The answer is that if trauma and emergencies are one of the main causes of cancellations and waits, then as an indirect contributor to the 6-month target, investment in trauma and beds will prove worthwhile.

Theatre efficiency

? *Is there scope to improve theatre efficiency further by adopting or extending some of the suggestions from national practice or those already in place locally?*

These measures included arrangements for harmonising bed availability and theatre lists, agreed start times and ensuring staff and equipment were available and part of list planning.

? *Are patient lists and consultant specialisms and establishment matched?*

Pooled consultant lists are easier to introduce when the bulk of procedures are routine, but less appropriate for complex procedures where consultant specialisms need to be taken into account.

Skill mix

? *Is there scope to change the skill mix in theatres, for example use of surgical assistants to position limbs, close wounds, etc?*

? In one site there were insufficient trained theatre and ward staff. What are steps needed to train and backfill?

Recruitment and retention of adequately trained theatre staff is important and some of the examples of trusts who have harmonised pay and conditions for staff and provided flexibility and annualised hours for part time staff may be relevant here. (Case study: Term time contracts are offered on a part time basis. Staff work 10 hours during holidays and 21 hours during normal working weeks. The hours are annualised to allow for different school holidays. (Southampton General Hospital) (Improving operating theatre performance)

Post operative care and discharge

Some initiatives include:

- Post operative mobilisation by ward staff and therapy staff be available seven days a week (providing mobilisation at weekends for joint replacement patients reduces the length of stay by at least one day)
- Patients to be discharged when criteria are met without waiting for a ward round and the introduction of early discharge schemes such as hospital at home, orthopaedic outreach, community rehabilitation, step down or rehabilitation beds, and the use of discharge lounges with patients discharged from the ward by mid morning.
- Reduce unnecessary outpatient attendances and practice of all patients seeing the consultant. Consultant could see patients with problems, not every patient and others see ESPs, extended scope nurses, or be offered telephone follow up.

South Devon healthcare trust and the primary care trust identified capacity problems associated with the length of time patients spent in hospital for planned joint replacement. They concluded that with the right support patients could be discharged sooner, and appointed an outreach sister to assist patients' return home, and with other service improvement, managed to reduce the average time hip and knee replacement patients spent in hospital from 13 to 7 days.

Local issues

At Swindon there is a joint arthroplasty clinic run by nurses and physiotherapists for patients post surgery, which takes a holistic look at patient's progress.

Also in Swindon, a supported discharge team works with elective patients from before admission with pre operative exercise classes, follow through in hospital and earlier discharge home with a team of nurses, physiotherapists, OTs and a rehabilitation assistant providing support.

? Could these developments be extended to other sites? What would be the staffing and training issues?

4. WORKFORCE – NEW ROLES

A number of new, redesigned and extended roles have been developed. Many of these recruit or develop existing healthcare professionals and therefore although may aid recruitment and retention because the jobs have a career structure and CPD opportunities e.g. ESPs, they also may erode the core staff group and backfilling can be an issue.

There are also issues about role development that is largely in one direction, i.e. doctors' tasks being undertaken by more specialist nurses and AHPs, and nurses and also tasks being undertaken by assistant grades. There are concerns for some that these developments have the potential to erode core tasks and potentially impact adversely on patient care and outcomes. The traditional example is that of nurses who now carry out very little personal care tasks of bathing, bed making, and feeding, these jobs being delegated to assistants. However, it is whilst undertaking these tasks, that opportunities for clinical observation take place: skin health, how a patient moves, and a relationship giving the patient opportunities to talk about symptoms, worries, etc en passant. This can frequently be more revealing than an explicit, specific interview. So the issue is how extreme division of labour can be avoided where this cuts clinicians off from important contact with patients and how assistant practitioners can be sufficiently well trained so that they can actively contribute to patient care and the information they obtain not be lost. It is particularly important that effective communication channels are established to deal with the increased number of handovers.

However, positively there are a number of new extended roles, and clinical career grades from specialist to consultant, in addition to progression through education or management. Nurses working as partly autonomous practitioners in referral, discharge and follow up clinics, or coordinating services to create a more holistic and effective service for patients are increasingly common. Within orthopaedics, there are many chronic, long-term conditions e.g. back pain, which may not be resolvable by surgery, and nurses regard the management of these conditions as area for which they are particularly well trained. Physiotherapists have their own progression from practitioner to consultant and extended roles, working independently or with orthopaedic nurses in referral and follow up clinics, and providing treatment, e.g. soft tissues and joint injections. It is likely that patients and services would benefit from an extension of these developments.

The problems for nursing has been that post registration training is now not standardised with nurses free to choose from a range of university modules and components from within those. It is therefore less easy for employers and other professional to know what core knowledge and skills nurses will have. The Society for Orthopaedic and Trauma Nurses and the Nursing and Midwifery Council are trying to rectify this. For each level from practitioner to consultant, there will be an agreed core training framework, with a view to this providing the gateway for grade progression, as in other professions.

For assistant and technical staff, there are also growing opportunities in orthopaedics. Many patients require considerable support in personal and health care, and basic rehabilitation which and HCA with an NVQ in Care and some additional specific training

would be well equipped to provide. For the more technically minded, the demand for plaster technicians is a growing and the role is becoming increasingly specialised. Previously, recruitment was mainly from nurses and physiotherapists, but recruitment has now widened. With new types of plaster and patients requiring serial plastering, there is a national training programme and a call for regulation.

In the next section are a number of posts that are been piloted in pilots for orthopaedic services and those designed to address the EWTD.

Surgical practitioner trials

These are non-medical healthcare professionals working in operative and perioperative care. At Morecambe Bay Hospital there are two trainees in vascular and orthopaedics and one to two trainees who will work at Harrogate Hospital in new trials. The training is based at St Mary's, Paddington and in Manchester which is linked with the Royal Liverpool and Broad Green University Hospital Orthopaedic Department. So far the results suggest that the surgical practitioner role saved 20 minutes of medical time per operation.

Nursing roles

Research suggests that the higher the percentage of registered nurses in the nursing workforce, the lower the rates of patient mortality and post-operative complications. However given the shortage of registered nurses, it is important to focus on the following:

- increasing the number of registered nurses
- changing what registered nurses do
- changing the demand for healthcare. (*The Future Nurse, Royal College of Nursing*)

Trauma and orthopaedic nurse practitioner

At Kettering Trust there has been a merger of SHOs in ENT, trauma, orthopaedics and general surgery to provide cross service cover for emergencies. The role of trauma and orthopaedic nurse practitioner has been developed to reduce the work intensity at night. The introduction of the trauma nurse practitioner has resulted in faster transfers from accident and emergency to wards.

Surgical nurse practitioners

At North West London Trust, medical and surgery emergency patients are assessed in the same unit by a team including medical staff from A&E, medicine and surgery. Surgical nurse practitioners replace SHOs at night. (Changing the workforce programme, Working Times) (www.modern.nhs.uk/workingtime)

Specialist nurse orthopaedic surgery

This post-holder offers consultation, diagnosis and planning and reviewing of patients after surgery and also acts as first assistant in day theatre. (York Trust)

Fracture clinic nurse practitioner

This post assesses, diagnosis and treats patients with minor fractures within specified protocol. They can request some diagnostic tests including x-rays within local policy and protocol. They offer some treatments e.g. stints and dressings. (York Trust)

Discharge liaison nurse

This post-holder provides case management focussing on discharge. There is one discharge nurse per consultant who liaises with wards, staff, carers, social services to provide timely and appropriate discharge. (Harrogate Trust)

Orthopaedic physiotherapy practitioner

This post provides new patient assessment and refers to others as appropriate. They can carry out soft tissue and joint injection and arrange some investigations. (Doncaster Royal infirmary)

Perioperative specialist practitioner

This is a new role to work alongside SHOs and pre-registration HOs in surgical wards carrying out pre-operative assessments, clerking, history taking, preparation of patient for surgery, post operative management, discharge and follow up. (Role Redesign: Review of activities, 2003-4, The Changing Workforce Programme)

Trauma and orthopaedic assistant

This job includes phlebotomy, cardiography, plaster skills, investigation and results collation. (Queen Mary's, Nottingham)

Service improvement manager – orthopaedics

This post is designed to develop and facilitate improvement across the healthcare community, supporting new practice and encouraging teams or individuals to progress quality and efficiency initiatives. (The United, Lincolnshire)

? Would introducing any of these new roles and/or increasing the numbers of those already established e.g. ESPs, ESNs and GPwSIs contribute significantly to solving some of the difficulties experienced in parts of the region?

Implementing change

As with any changes, NOP acknowledged the importance of introducing changes that are seen to address identified problems, that will improve patient outcomes, be consistent with values, and can be introduced in small steps, tested and are adapted as appropriate. Additionally, the timescale for change is likely to be one to two years, and it may be important to look for quick wins, i.e. changes that will result in immediate and obvious improvements. Crucially all staff need to be actively involved, as very small improvements identified by junior or senior staff, at any step along the pathway, may have disproportionately large benefits. Equally, where reservations are expressed, it suggests that either the proposed change needs to be rethought or the implementation process redesigned. There are apparently local examples where some changes, are considered by staff, to have put back effective developments and undermined working relationships.

Making it happen

A number of the recommendations in improvements to surgery and orthopaedic services would be relevant here and the ten Top Tips list. However it appear that there are some relationship issues between groups of staff – between trusts, managers, clinicians need to be proactively resolved. It is also unclear what the impact on capacity of treatment centres, the impact of private practice, or the effect of payment by results, patient choice, the required use of the independent sector, particularly given the financial position across Bristol and Bath.

Local

The National Orthopaedic Project identified a number of issues found in other sites. These included the following:

- No coherent muscular skeletal strategy across the health economy for tackling the six-month waiting target.
- Deadlocked relationship in the health economy.
- Insufficient dedicated senior management time for orthopaedics
- Insufficient capacity mapping
- Capacity in demand in-balanced.
- Waiting list managed by the PCTs rather than the trust.
- A fire fighting focus rather than designing out bottleneck.
- Poor information and data systems
- In-balance between trauma and elective work.
- Inefficient use of theatre capacity.

5. LABOUR MARKET TRENDS

Introduction

This overview identifies the long-term trends from local, national and international labour markets. While the perspective in some cases is up to ten years ahead, the action to address them needs to be taken very soon to counteract the powerful trends that are taking place.

It makes the case that it will be harder for all employers to recruit and retain staff, as the labour force will decline while the demand for labour will increase. The NHS therefore, has to improve its attractiveness to current and potential employees, merely to stand still.

General Employment Trends

International trends

- Most populations in developed countries are aging
- International competition for skilled labour will increase
 - America alone needs more than one million new and replacement nurses be needed by 2012ⁱ.
 - More UK based nurses are leaving for the USA. In 2002-03, more than 2,200 verification checks on UK-based nurses were requested by American employers, up from just over 1,000 the previous yearⁱⁱ.
 - Nurses and other healthcare staff in the Philippines will be attracted to America, where they have historic links in preference to Britain.

England Supply

- The UK population is ageing – so is the workforce.
 - Older workers may want to work fewer hours and value flexibility in employment
- The national labour market will shrink by 700,000 by 2010.
 - Competition for labour will increase, especially for those with skills that are valuable outside healthcare. Therefore, NHS wastage and vacancies could increase as a result.
- The number of school leavers will decline and yet a higher percentage will go on to university – the Government target is 50 per cent.

Demand

- The demand for labour will grow by an additional 2m jobs by 2010.
 - Competition for labour and NHS vacancies and wastage could increase further
 - The growing demand from service sector employers will increase the competition for women in employees, which will affect the NHS disproportionately, as it has a predominately female workforce.
- The public sector proportion of the UK workforce is declining.

Bristol, Avon and Wiltshire

Bristol

- There is plenty of competition for labour between employers in banking, insurance and finance and IT related employment. This is evidenced by a very rapid decline in unemployment and the large number of clerical vacancies.
- Unemployment affects young people from deprived areas who have performed poorly at school and who lack employment related skills.
- Bristol school leavers have poorer results than the national average.

Swindon

- Pay rates are high and average household income is above the national average.
- The low skill base of the population is a threat to the town's continued prosperity.
- Unemployment is concentrated amongst the over 45s whose former employers have recently shed staff.

Gloucester

- Unemployment rates are in line with national average, but are above those of the county.

Competition

- Expansion in demand for employment locally: the docks are likely to require male, skilled manual labour. However, the airport expansion will recruit a large number of women – i.e. serious competition with the NHS

NHS Employment trends

NHS in England

Past trends

- The NHS workforce is growing at a rate of 3.1% a year.
- Medical staff growth is 3% a year and Therapists growth is 4% a year.
- UK stands out among other western nations as the country that is most heavily reliant on recruiting nurses from the developing world, with nearly 10,000 people from developing nations registering to work as nurses in the UK between 2000/1 - 2002/3ⁱⁱⁱ.

Future Demand.

- Ageing population; by 2011 16.5% of the UK will be over 65.
- Increase in long-term conditions.
- Changing patterns of service delivery.
- Increased demand for staff.
- By 2010 the NHS will need to increase its workforce by 200,000 jobs
- Recruitment of 150,000 HCAs.

Supply

- Over 80% of existing professional and assistant staff need to be replaced by 2010.
- Number of nurses retiring will double between 2005 and 2015, with 27 per cent being aged over 50.

- Shortages of professional staff – 25,000 doctors by 2020.
- The feminisation of medicine (60 per cent of medical school intakes are female) will require more doctors to work a given number of hours, as women have shorter working lifetimes due to career breaks.

NHS in Avon, Gloucestershire and Wiltshire

Overview

- The AGW area has had far fewer recruitment problems for professional staff than the rest of the country. However, administrative and clerical staffing has been problematic, with the competition from the financial sector. This means that there has much less pressure to introduce new roles and to change skill mix.

Reference costs

- The historic overspends in Bristol suggest that reference costs are likely to be above average in many cases. This will produce major pressures to increase productivity through improved working processes. In addition, there are likely to be also be skill mix reviews to see whether other types of staff could undertake the work at lower cost.

Promoting NHS careers

- How can we sell careers not jobs? Starting pay is very poor in the NHS, yet little is made of the extensive training and opportunities for promotion.

Targeting graduates

- There are a large number of graduates who find it difficult to get jobs. Why not aggressively target sports scientists, biologists, psychologists?

Impact of IT

- More IT will reduce the demand for clinical records staff, but increase the demand for staff IT staff and information analysts. The data goldmine will enable the NHS to evaluate the impact of different drug regimes and care strategies much more effectively.

Demand and supply

- Plurality of providers – the greater use of the independent sector. This could drain more staff away from NHS and on the other hand, possibly encourage more efficient practices in the NHS.

Danger of pay spirals

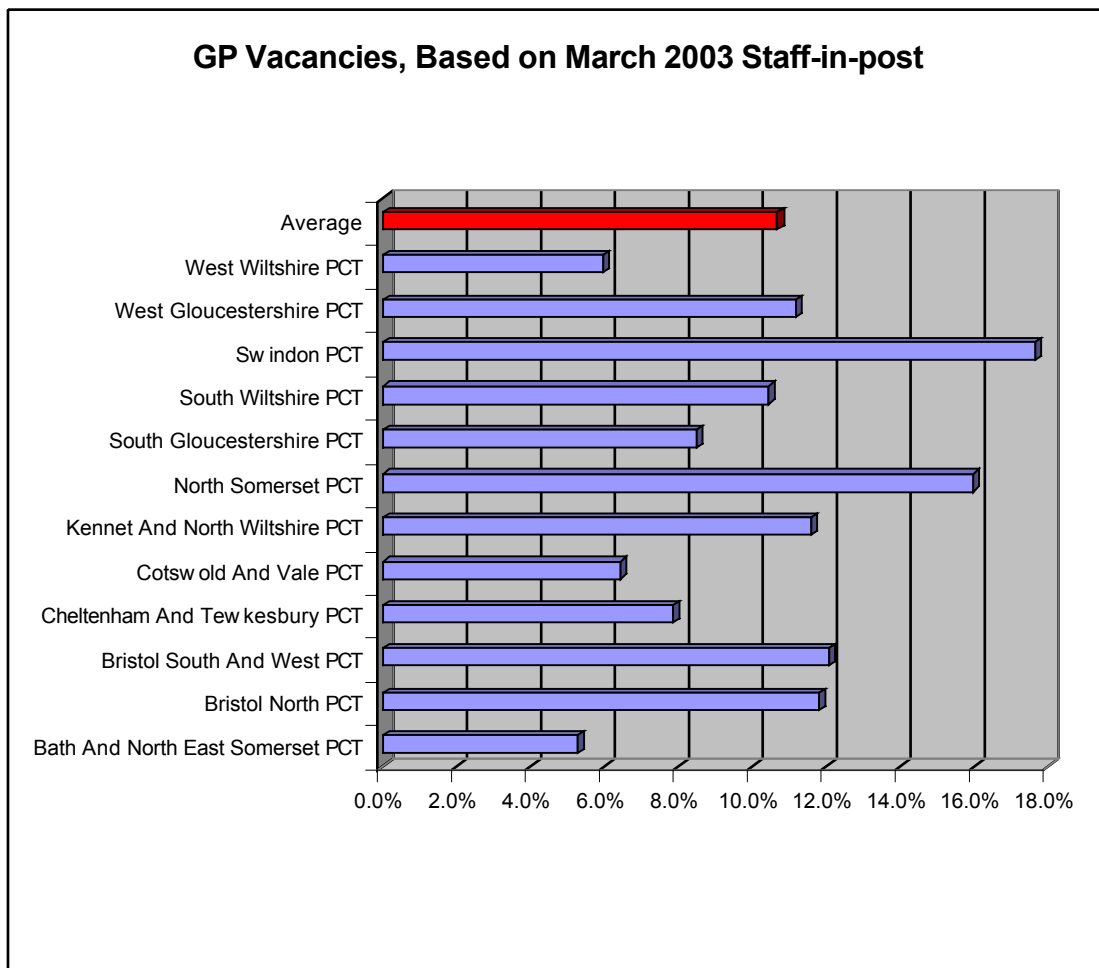
- There is a danger that health and social care organisations faced with growing staff shortages will compete against each other very intensively, resulting in upward pay pressures, unless a coordinated approach is made to the problem by employers.

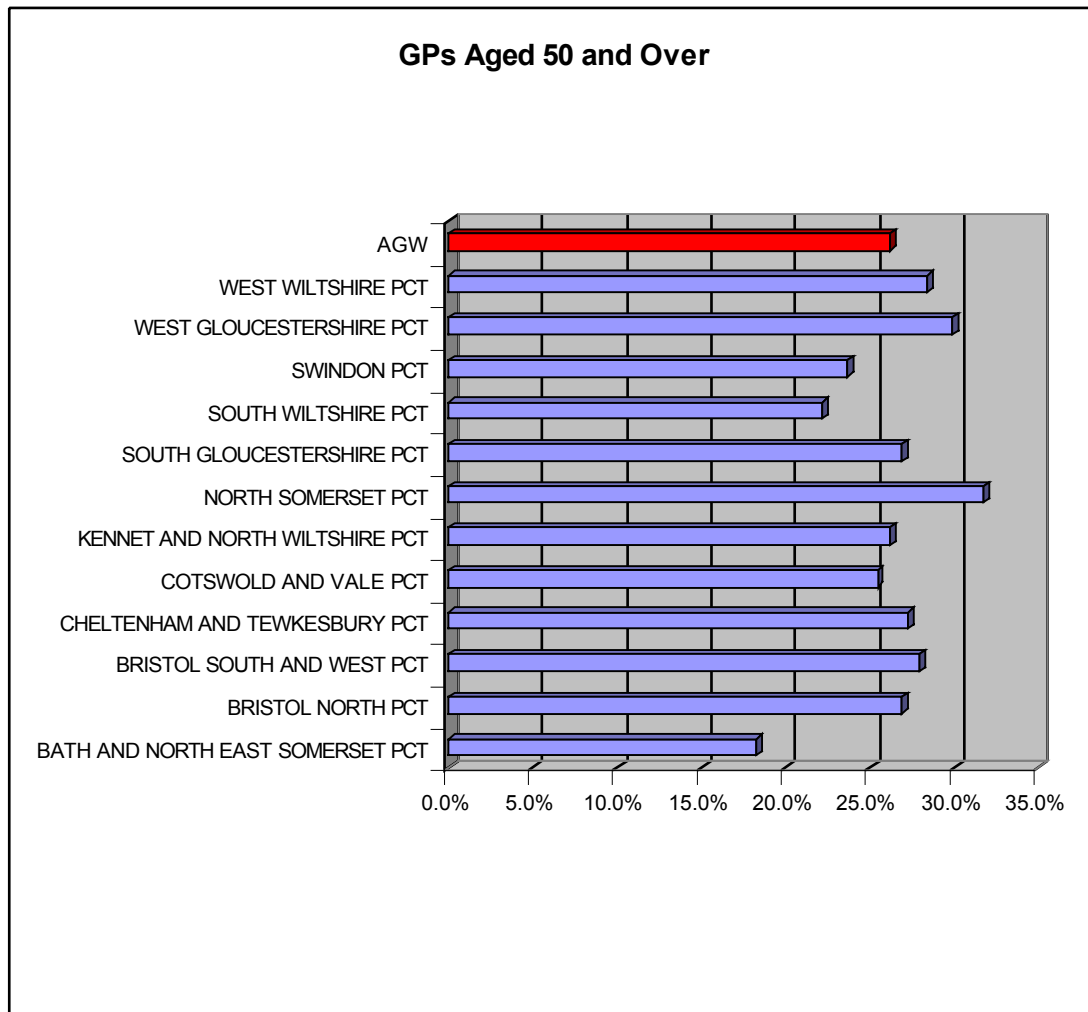
GPs

- There is a 11 per cent vacancy rate across AGW, with serious shortages in Swindon (18 per cent) and North Somerset (16 per cent).
- There will be a major problem trying to replace aging GPs as 26 per cent are aged 50 and above. This problem is particularly marked in North Somerset, where over a third are in that age group. This is on top of the very high current vacancy rate referred to in the previous paragraph.

Diagnostic radiographers

- They are in great demand and from an intake of 20, three obtained work within AGW and a further five obtained work in neighbouring Health Authorities. The destination of five was unknown. One interestingly joined Barclays Bank. However, there has been a recent increase in commissions and managers seem to have less problem filling vacancies than their counterparts elsewhere.





Staff groups related to Orthopaedics – Vacancies 3 Months or More

	Significantly above ave.	Somewhat above average	Average	Somewhat below ave.	Significantly below ave.
Surgeons					✓
Anaesthetists				✓	
Adult Nurses				✓	

Avon, Gloucestershire and Wiltshire Labour Markets

Bristol

Main employers by sector

Key business sectors in the sub-region include aerospace and defence, printing and packaging, financial services, electronics and electrical engineering, and creative industries.

The aerospace industry in the South West directly employs over 40,000 people - and the Bristol area is at the heart of this. As well as the major names like Airbus and Rolls Royce, there are hundreds of smaller enterprises that have a vital role to play. This is reflected in much high index figures for knowledge based industries Bristol (120) and South West (124) compared with the UK (100).^{iv}

Banking, finance and insurance sector, employing 28 per cent of the Bristol workforce is very large compared with England as a whole.

The Printing, Packaging and Graphic Communications sector is the United Kingdom's sixth largest industry, with a turnover of £13 billion.

Over the past 20 years, it has been transformed from a traditional craft-based industry to a leader in ICT and digital technology.

Bristol Employment by Sector

Sector	Employees	%
Manufacturing Industries	23,900	9.8%
Utilities / Agriculture	1,200	0.5%
Construction	12,100	5%
Distribution / Hotels & Restaurants	49,400	20.3%
Transport & Communications	12,500	5.2%
Finance, Insurance and Business Services	68,800	28.2%
Public Administration, Education and Health	64,000	26.3%
Other Services	11,700	4.8%
Total	243,900	100.0%

Source: ONS Annual Business Inquiry 2002

Population and employment trends

The population of Bristol is projected to grow at a lesser rate (2.9 per cent) than England (3.8 per cent). However, the South West is likely to grow at a faster rate (5.8 per cent). Bristol has relatively more affluent blue collar workers and hard pressed families and single parent families receiving income support and high numbers of young children. Bristol has a higher rate of deprivation (29) than England (22)^v. A quarter of the Bristol population live in the most deprived 10% of wards in England.^{vi} This is where most of the young unemployed are concentrated who are thought to have low skill levels, as they seek unskilled jobs. They represent a larger problem for Bristol than unemployed people over 45. The South West in comparison has more affluent people in their 50s and senior citizens. This is reflected in a lower deprivation score (19) than England.

Employment in Bristol grew by 5 per cent 10,700 jobs between 1993 and 1998, particularly for the more skilled jobs and it is expected that this growth will continue in the short-term. In tandem with this, unemployment fell from 8.2 per cent to 3.4 per cent, which is lower than the UK average rate between 1996 and 2000. Unemployment in the South West is even lower 2.7 per cent.

Vacancies in Bristol were heavily concentrated in the distribution, hotels and restaurant sector and in banking, finance and insurance. The latter is reflected in difficult to recruit occupations, where clerical posts were the worst affected. ICT recruitment difficulties are also a growing problem. Bristol employers suffer to a greater extent from the recruitment difficulties than most others in the South West.

A survey of employers noted that a greater use was made of 'family friendly' policies in Bristol, which was attributed to the tight labour market^{vii}. The Bristol labour market is largely self-contained, with three quarters of employed residents working within the area.

Education

Secondary school performance in Bristol is below the national average. A higher percentage of school children are disadvantaged in that they have special educational needs and suffer from exclusion. Furthermore, more children are looked after. Nevertheless, a growing percentage progress to higher and further education with a diminishing number seeking jobs (16 per cent) in 1999^{viii}.

Skill Attainment Levels

Bristol and Area - Age	Bristol	England
with NVQ 4+	31.8%	23.5%
with NVQ 3+	15.8%	13.9%
with NVQ 2+	13.2%	14.9%
with NVQ 1+	16.1%	15.5%
with other qualifications	6.3%	9.1%
with no qualifications	11.8%	16%

Source: Nomis, ONS, Local Area Labour Force Survey 2001

Swindon

(Source www.swindon.gov.uk/business/economics.htm)

Economic overview

Despite a recent slowdown, the Swindon economy continues to be strong and competitive. The average earnings of local workers are high, and the average household income is well above the national level. Swindon is especially strong in the high and medium high tech sector, with twice as large a proportion of employees working in this sector as the UK as a whole. In Swindon, the overall new business activity is comparatively low and the number of companies de-registered has had a significant increase.

Service sector

In the past few years, the service sector has accounted for most of the employment growth in Swindon. Newly-available data, however, reveals that the productivity of the local service sector is falling below the national average. With the level of wages in Swindon comparatively high, the low productivity of the service sector is undermining its competitiveness. This needs to be addressed through raising the productivity of the existing service sector and attracting more high value added service industries into the town.

Qualifications of workforce

One of the biggest challenges for Swindon is to continually improve the qualifications of its workforce. As a major economic centre, Swindon is still far behind many of its competitors in the qualification attainment of its workforce. This needs to be urgently addressed by all education and training providers if Swindon is to stay a high-tech centre, improve its productivity, retain existing investment and attract high quality jobs into the town.

Local downward employment trends

The indicators have revealed that the general slowdown of the economy has begun to affect the workforce in Swindon. There has been a persistent monthly increase in long-term unemployment over the past year while nationally the level has come down. This indicates a skill mismatch problem in the local labour market, which will become increasingly an issue as the local industrial mix starts to change. Therefore support for redundant workers and an accurate assessment of future skill requirements for Swindon is essential.

There has also been a sharp increase in inactivity among the local workforce over the past year against the background of a series of local redundancies. This reflects an increase in under-employment among some groups of local people, especially the lower skilled workers and older people. The extent and the nature of the problem needs to be assessed so that effective policies can be put in place to support these people back to work so that they can continue to contribute to the local economy.

Gloucester

(Source: <http://www.gloucester.gov.uk/libraries/templates/page.asp?URN=71>)

The city's population is 109,888 and 7.5 per cent of the residents are from black and ethnic minority communities. The age structure of the population is similar to that of England and Wales with 32.08% of the population of Gloucester being under 25 and 14.96% being over 65. The population is expected to follow the national trends and for there to be an increase in elderly people and single person households in the future, increasing demand on housing and health services.

Good communications by road, river, canal and railways historically made the city attractive for manufacturing. Local employment is now mostly in health, education, public services, wholesale, distribution and manufacturing. Unemployment in Gloucester stands at 3.4%, which is high compared to the county average of 1.8% but is equal to unemployment in England and Wales overall.

Appendix 2

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Glossary

NCEPOD (National Confidential Enquiry into Perioperative Deaths)

Appendix 3

Glossary of Terms

Acronym	Meaning
AHP	Allied Health Profession: generic heading for staff groups such as Occupational Therapists and Physiotherapists. It replaces PAMS (Professions Allied to Medicine)
ENT	Ear, Nose and Throat
ESN	Extended Scope Nurses
ESP	Extended Scope Physiotherapy
EWTD	European Working Time Directive
GPwSI	GPs with a specialist interest – take referrals from other GPs with suitable training, reducing the flow of patients to consultants
HCA	Health Care Assistant
HRGs	Health Related Groups: conditions clustered together for costing purposes, such as Payment by Results
ICT	Information Communication Technology
MRSA	Methicillin Resistant Staphylococcus aureus: antibiotic-resistant infection
NCEPOD1	The National Confidential Enquiry into Patient Outcome and Death
NVQ	National Vocational Qualifications
NOP	National Orthopaedic Project
ODA	Operating Department Assistant
ODP	Operating Department Practitioner
ONS	Office for National Statistics
OT	Occupational Therapist
PCT	Primary Care Trust
PBR	Payment by Results: new founding arrangements affecting all foundation for the majority of service trusts and other acute trusts in a phased basis
RUH	Royal United Hospital Bath NHS Trust
SHA	Strategic Health Authority
SHOs	Senior House Officers
TC	Treatment Centres: providers of large volume elective surgery
WDC	Workforce Development Confederation

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2	9 January 2005	Included corrections from Jan Lynn, Changing Workforce Facilitator, AGW STHA

ⁱ U.S. Bureau of Labor Statistics published in the February 2004 Monthly Labor Review,

ⁱⁱ RCN Report, quoted in Observer, 31 October 2004

ⁱⁱⁱ RCN warns of fragile future of the nursing profession, Press Release, 1 November 2004

^{iv} WESTEC Community Profile - Bristol

^v Department of the Environment, Transport and the Regions, Indices of Deprivation 2000, quoted in *ibid*

^{vi} *Ibid*, p.24

^{vii} *Ibid*, p.38

^{viii} *Ibid*, p.103