NHS Improvement

Delivering major breast surgery safely as a day case or one night stay

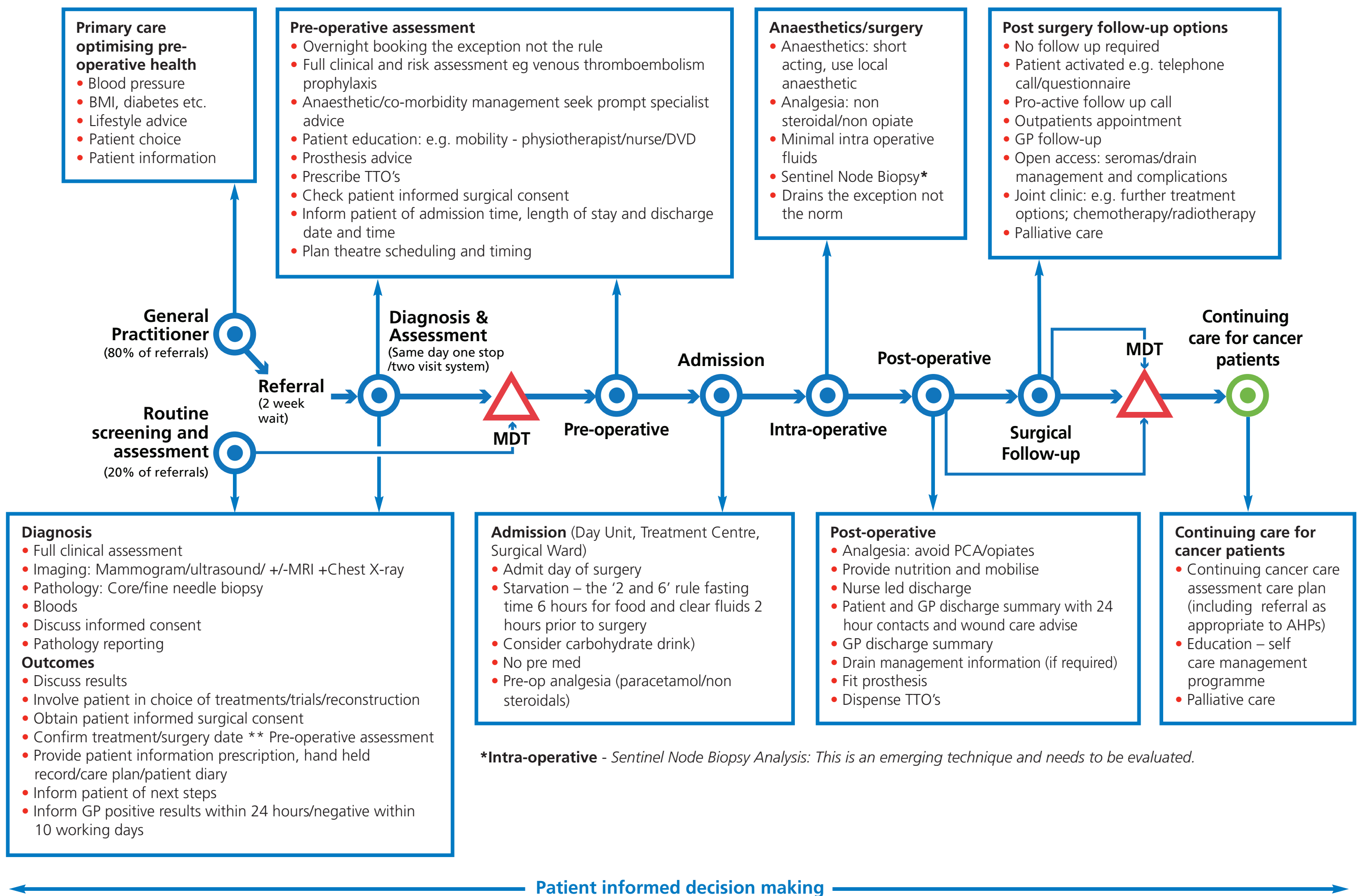
(excluding reconstruction)

ASSOCIATION OF BREAST SURGERY

NHS

NHS Improvement

Day case or one night stay breast surgical pathway (excluding reconstruction)



Acknowledgements

NHS Improvement would like to thank the thirteen clinical spread networks, the British Association of Day Surgery, the Association of Breast Surgery, Breakthrough Breast Cancer, clinical advisors and patients for their support.

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Foreword

Twenty five years ago, when I was first a consultant medical oncologist specialising in breast cancer, patients undergoing breast surgery (mastectomy or breast conserving surgery) typically stayed in hospital for 10 days. Within a few years this had fallen to five days, but that then became the norm.

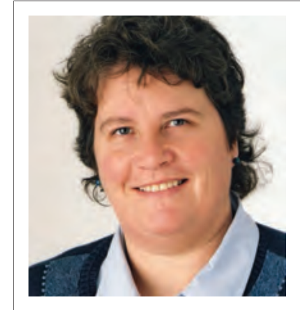
Much more recently a second revolution in surgical care has taken place. It is now recognised that the vast majority of operations for breast cancer (excluding operations for breast construction) can be safely undertaken as a day case procedure or with a single overnight stay.

NHS Improvement has been working with clinical teams across England to transform the way in which breast surgery is delivered. This work has been supported by the British Association of Day Surgery, the Association of Breast Surgery and by patients. All the partners have recognised that the transformation is good for patients and good for the NHS. Patients do not need to be admitted to hospital the night before surgery. Equally they want to return to normal life as quickly as possible.

The original hypothesis underlying this work was that streamlining could reduce length of stay by 50% and release 25% of unnecessary bed days for 80% of major breast surgery (excluding reconstruction). This goal has been exceeded. Mean length of stay has reduced form 2.35 days to 1.35 days overall. The number of patients with length of stay greater than one day has been reduced markedly. Overall bed days have been reduced by more than 40%.

Although improvements have been observed in most NHS Trusts, significant reductions in lengths of stay could still be achieved in some areas. I urge them to read this report and to take action. Meanwhile I would like to thank all those who have delivered both quality and productivity – a remarkable example of 'QIPP' in action.

Professor Sir Mike Richards
National Clinical Director for Cancer
and End of Life Care



I am delighted to have the opportunity to introduce this work that demonstrates the effectiveness of providing major breast surgery as a day case or one night stay procedure.

This programme is a very successful demonstration of developing and spreading a new way of working that meets patients' expectations and reduces the demand on in-patient beds at the same time in a safe and effective manner.

Many patients who need breast surgery are understandably anxious about their diagnosis, and this has often been compounded historically by the need to spend several nights in hospital, away from their families. This NHS Improvement work has been able to change the way in which such patients are managed, and reduce the 'medicalisation' of their care, so that many feel that they are able to retain their autonomy and get through the process of health care more easily.

It is a clear advantage, in the current extremely tight economic environment, that this change benefits patients, is also to the benefit of those managing the healthcare budget since it reduces the demand for in-patient beds for a large cohort of patients and thus saves money for trusts.

The day case and one night stay breast surgery programme was started in a small area and has spread, via NHS Improvement methodology, to hospitals across the country. It has now been taken up by others beyond the programme as well, resulting in a significant shift in national figures for length of stay for patients having breast surgery.

This is a quality improvement that helps patients and healthcare organisations; its very pleasing to think that many patients who have to have breast surgery will be going "Home for Tea"!

Celia Ingham Clark
National Clinical Lead for
Transforming Inpatient Care

Why should major breast surgery be an inpatient procedure?

- **It's a relatively short operation**
- **Low post operative pain**
- **Patients can mobilise, eat and drink early**
- **Rare post operative events**
- **Patients want to return to normal life as quickly as possible.**

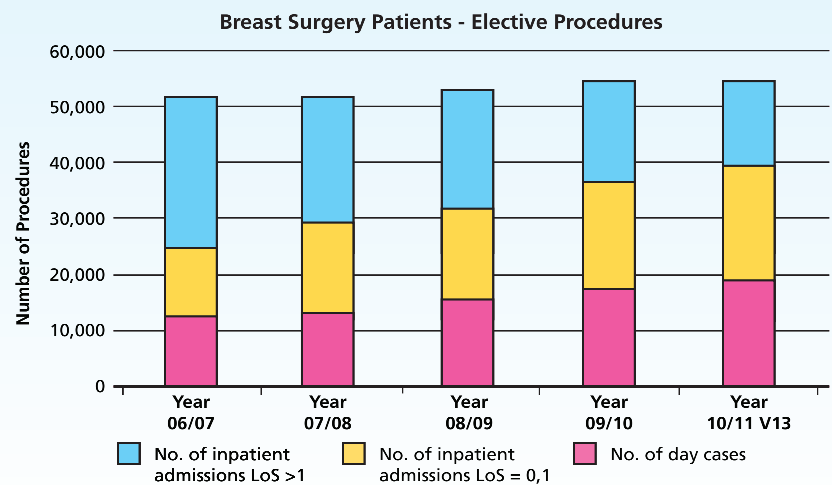
In 2007, NHS Improvement Transforming Inpatient Care Programme as part of the Cancer Reform Strategy (2007) and recently the Improving Cancer Outcomes Strategy (2011) redesigned the breast care surgical pathway (excluding reconstruction) with the working hypothesis that:

"Streamlining of the breast surgical pathway could reduce length of stay by 50% and release 25% of unnecessary bed days for 80% of major breast surgery (excluding reconstruction)."

Good progress has been made

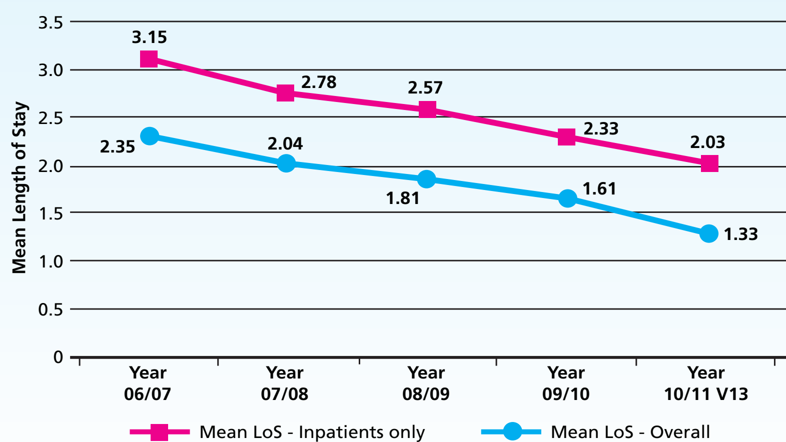
- **72% of breast surgery patients across England now benefit from the pathway, this number continues to increase indicating that 85% is achievable, exceeding the original hypothesis.**

Figure 1: The increasing shift to day case and one night stay has been gradual



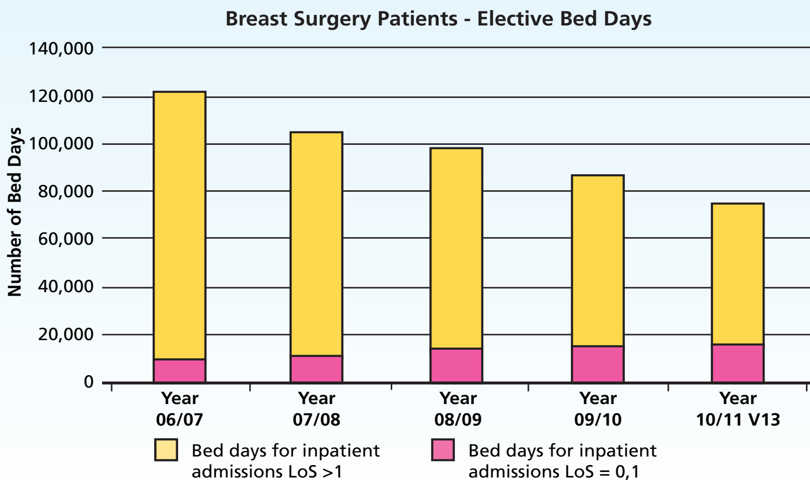
- There has been a gradual shift in the overall length of stay for patients (Figure 1). The traditional inpatient pathway had a range of length of stay from 0-7 days (2007, Hospital Episode Statistics (HES)
- Currently (2011) around 42% of breast surgical procedures have length of stay (LOS) = 0 days and a 'day case' ranging from 6 to 12 hours
- A further 30% have LOS of one night only, (2010/11 HES provisional)
- The overall mean LOS has reduced by 56%, exceeding the original working hypothesis (Figure 2).

Figure 2: Breast surgery patients - Elective mean length of stay



Figures 1, 2 and 3 source: Transforming Inpatient Care – HES Breast Surgery Patients, a paper for the National Transforming Inpatient Care Committee, Sep 2011, based on HES extraction by NATCANSAT, and analysis by DH. Further details on the HES extraction are provided in appendix 1.

Figure 3: Breast surgery bed days reduced by 41%, exceeding the working hypothesis



- Bed days for breast cancer have reduced from the baseline by 50,329 (41%) with most of the reduction due to shorter lengths of stay for episodes longer than a day; although the increase of short stays (zero or one day) has contributed (Figure 3)
- The proportion of patients not being admitted the day before surgery has increased from 69.6% (2006/7) to 94.6%
- Professional endorsement of the pathway has been achieved
- A Best Practice Tariff (BPT) is proposed for 2012/13 to incentivise day case surgery
- Patient feedback of their experience of the pathway is extremely positive
- Strong clinical engagement is evident in leading the improvements
- Variation in practice still remains with 28% of breast surgical procedures staying in hospital longer than two days
- Lengths of stay of more than one night increases with age although variation exists across Trusts
- Variation in clinical practice surrounding the use of wound drains, draining of, seromas, the administration of anaesthetics and pain control continues.

The continued spread, and sustainability of the breast surgical pathway across England is an important contribution to the whole cancer programme and as Professor Sir Mike Richards states:

"Over the next 15 years the incidence of cancer is likely to increase by around 24% (based on current trends). Putting pressure on inpatients' cancer services; hence in order to keep inpatients costs at the same level the average length of stay must fall by one quarter."

Professor Sir Mike Richards (2011)
National Clinical Director for Cancer and End of Life Care

If all patients with a length of stay of more than one night were converted to the day case/one night stay model, potentially 40,000 bed days could be saved.

From testing to spread... the approach

Throughout the service improvement phases (Figure 4) NHS Improvement shared the learning across the NHS to encourage local spread, adoption and adaption.

Figure 4: Service improvement stages

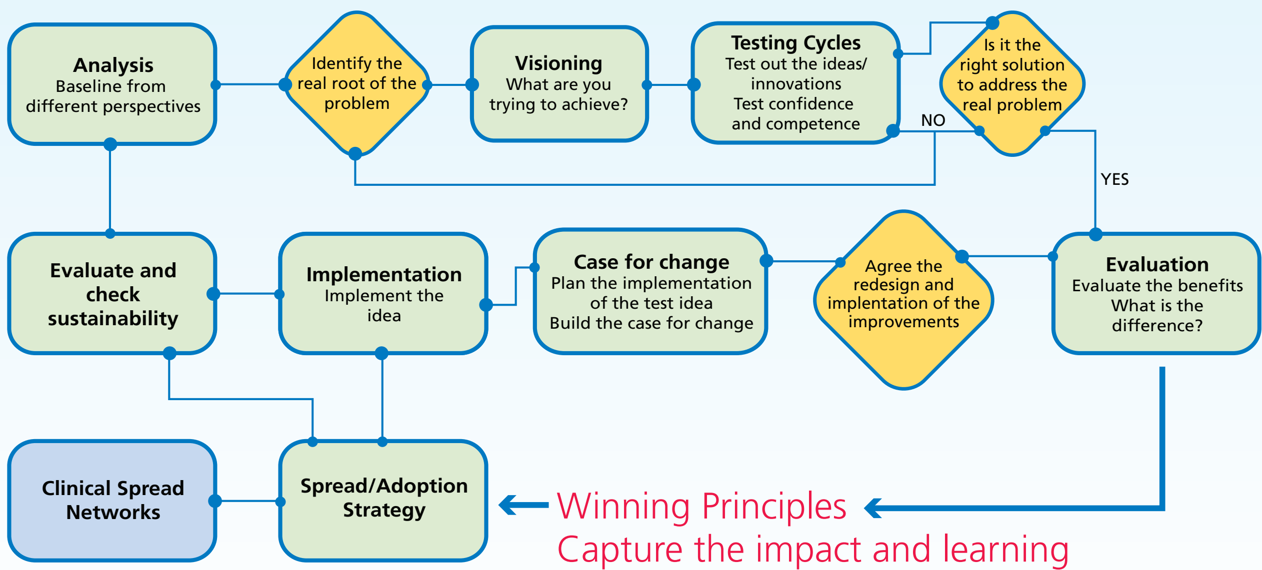
Phase	Year	Service Improvement stages	NHS coverage	Spreading the learning
1	2007	• Baseline the current situation • Review clinical procedures • Listen to all views and perspectives • Understand the culture, context and content of Trusts, clinical teams and pathways • Identify best practice and challenges		
2	2008	• Testing out the idea: Proof of Principle – What could be achieved. The Winning Principles (2008)	7 NHS hospital sites	The Winning Principles: Transforming Inpatient Care (July 2008) Meeting the Challenge Together (October 2008)
3	2009	• Prototype testing the transferability, confidence and competence of the improvement	25 NHS hospital sites	Spreading the Winning Principles and Good Practice (July 2009) Consolidation Report (2009) From Testing to Spread
4	2010-11	• Spread, adoption and adaption	13 clinical spread networks (72 hospital sites) 41% coverage across England	Spreading the Winning Principles case studies (July 2010) Breast day case/one night stay case studies www.improvement.nhs.uk

Service improvement literature has, highlighted the multiplicity and complexity of service improvement, redesign the challenges of spread and the time it takes…. it's like a marathon not a sprint, however, it's a race worth doing.

Pettigrew et al 1992, Senge 1999, Plesk 2000, Fraser 2002, McNulty et al 2002, Ovretveit et al 2002, Williamson 2007, Driver 2008).

Keep improvement simple

Figure 5: A consistent systematic approach was applied to capture the impact and learning

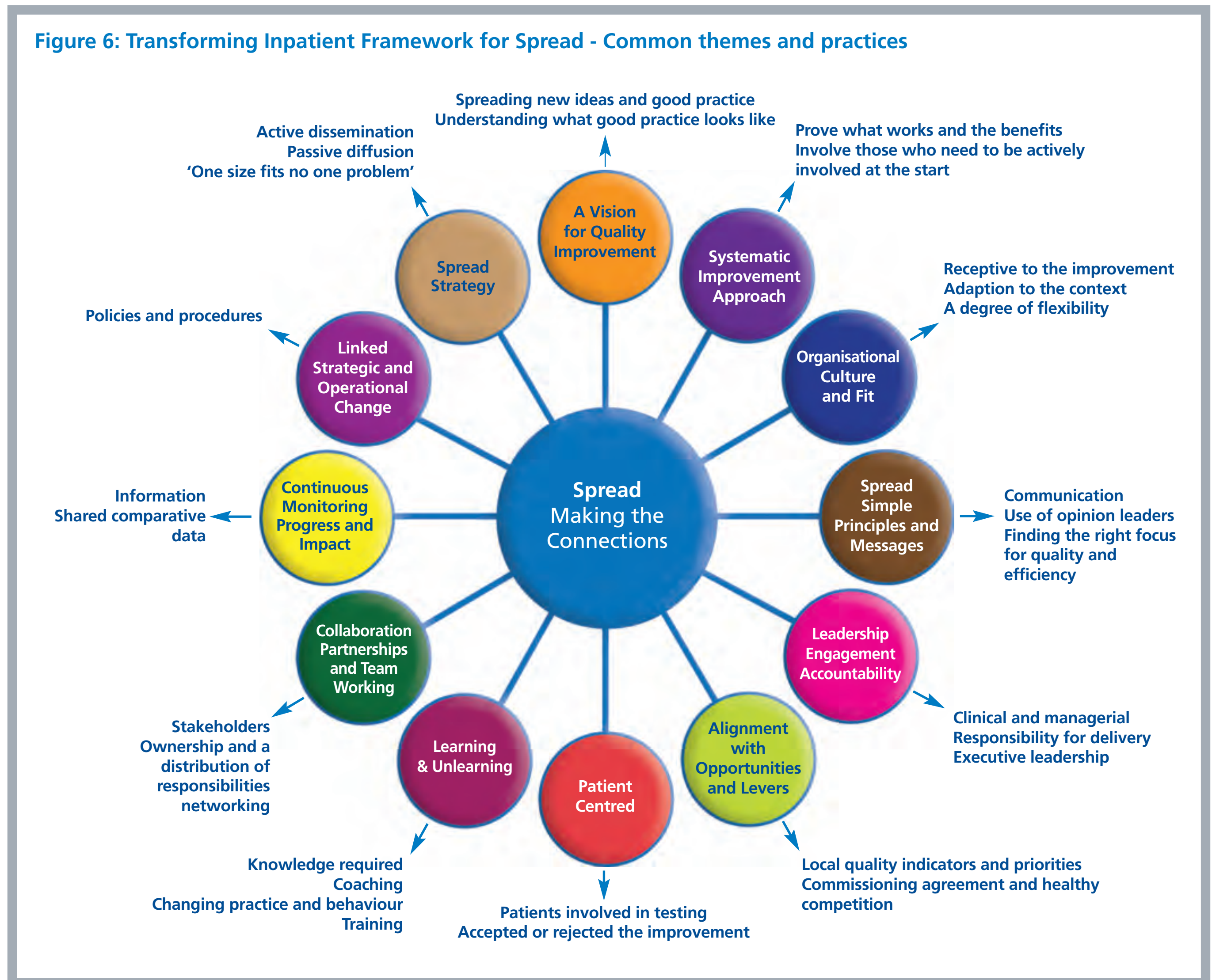


The redesign and streamlining of the breast surgical pathway took a simple systematic approach involving a multitude of reiterative service improvement cycles (plan do study act) and building the evidence for continuous improvement (Figure 5).

Influences, innovation and incentives for spread

Over the four years common themes and practices have emerged that supported the spread of the breast pathway. The themes have been collated and applied to the Transforming Inpatient Framework for Spread (Figure 6). The spread framework identifies the common components found to influence the rate of spread.

Figure 6: Transforming Inpatient Framework for Spread - Common themes and practices



The framework reflects the work of Pettigrew (1992) *Receptive Contexts for Change* and Rodgers (2003) *Theory on the Diffusions of Innovations*.

All the components of the framework were relevant and applied. Seven components (Figure 7) appeared to be more influential in enhancing spread within clinical teams. This was evident from local interactions, case studies and reported site feedback involving clinical leadership, multidisciplinary teams and patients.

Figure 7: The seven influential components

Learning from the 13 national clinical spread networks on the seven dominate components - Transforming Inpatients Framework for Spread application in practice:

1. Collaboration, partnerships and team working

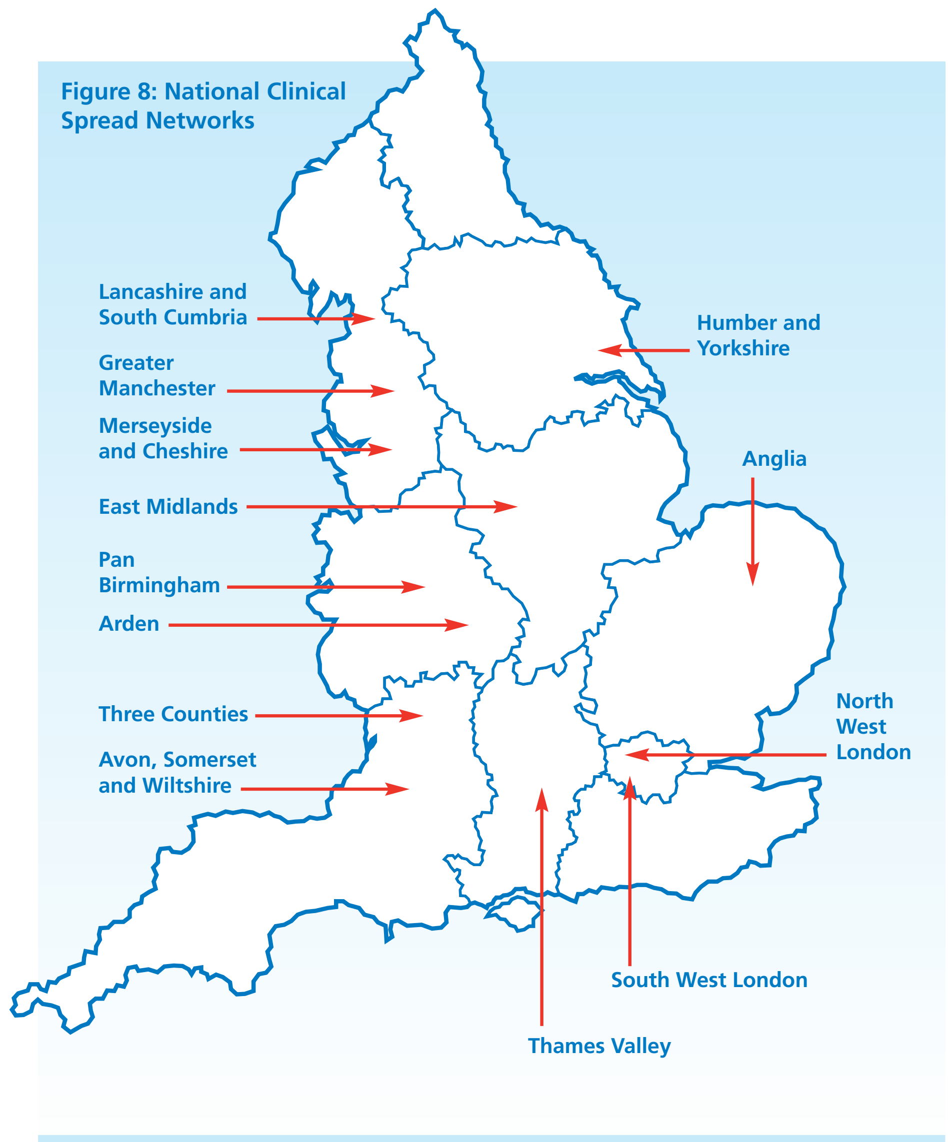
Getting teams together was extremely beneficial. Rodgers (2003), highlights the importance of the nature of the social system in which innovations are diffused. The clinical spread networks were brought together as a community for spread involving organisations, clinical and managerial teams, patients and carers.

Their contribution to spread was invaluable through enhancing the debate and sharing learning with peers. They provided a succinctness gaining consensus on the breast pathway. The sites shared personal experiences, perceptions and concerns. They could be described as the "early majority" of adopters, forming a localised network for spread, communication and an important link in the spread process with their deliberate willingness to adopt.

"It's been very gratifying to have been able to share our experiences with so many teams from around the country. I have been impressed with the interest and enthusiasm of teams and the quality of the discussions, which have helped us to further examine our practice and the perceptions around enhanced recovery after breast surgery."

Hamish Brown, Consultant Breast and General Surgeon, Sandwell and West Birmingham Hospitals NHS Foundation Trust

Figure 8: National Clinical Spread Networks



Transforming Inpatients Framework for Spread application in practice

2. Learning and unlearning

Many lessons have been learned over the four years. Some of the learning was new, reiterative and challenging.

It was evident across the sites that there was variation in service improvement understanding and application. Also, the time required for redesign was a challenge for many organisations. This can make the continuous spread of improvement difficult.

Supporting spread: Key learning from the clinical spread networks: The knowledge of 13

Take a **systematic approach** to **service improvement**. This takes time but **builds up a good evidence base** and gets to the **real root of the problem.**

Understand the **national** and **local context** and **coherence** with local **values and priorities.** This should not be underestimated and is needed to **gain commitment** to **deliver** in **challenging times.**

Give the **right messages** in the **right language** to the different audiences and to **spread the knowledge** for **persuasion and decisions.**

Clinicians don't like targets, managers **do**, and **patients are more concerned with getting better**.

Patient experience and **feedback** is a **key factor** in **accelerating the pace of spread.**

Engagement with **key people** leading change is not enough, **support them** to **manage, organise** and **mobilise the change.**

Build relationships across **professions** and **organisational boundaries.**

There is a need to **create the common purpose**.

Keep things simple, realistic and flexible.

It's ok to get it wrong.

Clinicians focus on research, gathering more evidence and audit.

They are often uncomfortable with the service improvement approach – but once they understand its value there is no stopping them.

Identifying key principles that can be adapted to benefit all patients develops a common purpose.

Understand the measurement of impact and success and be clear what you want to achieve, but remember one persons new idea is another person's normal practice.

The breast pathway is common sense, simple and comprehensible. Those that do not understand are in the minority but can be time-consuming. Go with the majority – the others will catch on later.

The importance of communication, co-operation, and collaboration in working partnerships is vital and so is commitment.

Build the evidence base from the begining of the improvement work to strengthen, spread and sustain and to win over the sceptics.

Professional boundaries and traditional roles can be barriers to spread.

We found the doctors accepted the pathway quicker than the nurses, but once the nurses came on board it flew.

Some of the learning focused on dealing with uncertainties, assumptions and perceptions. Peer to peer support helped to build confidence levels in the new pathway and the changes in clinical practice.

Four specific aspects were commonly highlighted:

1. **Changing clinical practice relating to the use of wound drains, drainage of seromas and pain control.**
2. **Assumptions that patients would not want to go home earlier.**
3. **Perceptions that the redesign was a cost cutting exercise.**
4. **Preconceptions "We do this anyway" and "this will increase re-admissions."**

"One must learn by doing the thing, for though you think you know it, you have no certainty until you try."

Sophocles, 400BC

"There was a misconception that the proportion of women who would be suitable for early discharge in parts of the country with greatest concentration of elderly or socially deprived patients would be difficult. The results have shown this not to be the case with achievements from Birmingham (the fourth most deprived area in the country outside London) and Kings College Hospital NHS Foundation Trust who has 20% of patients who are asylum seekers and a high number of patients with complex psychological support needs, with many from a socially deprived background. Day surgery has been beneficial for sorting this out smoothly."

Jo Marsden, Consultant Breast Surgeon, Kings College Hospital NHS Foundation Trust

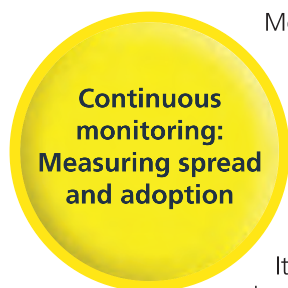
Many of these uncertainties had been tested by the early adopters (see Figure 4 - Spreading the Learning).

The spread networks included some of the early adopter sites. Bringing these together helped to decrease the uncertainty and provide an evidence base in which to build the new knowledge and challenge the old.

The spread networks could be described as the early majority adopters (Rodgers, 2003).

Transforming Inpatients Framework for Spread application in practice

3. Continuous monitoring: Measuring spread and adoption



Measuring the spread and adoption of the breast pathway cannot be over simplified. It is ever-changing and many measurement indicators only provide part of the story. Rodgers (2003) recommends that four attributes should be measured, but these rely on individual's perceptions as a measure of spread.

Rodgers attributes include:
- Rate of adoption
- Complexity
- Relative advantage
- Trial.

These are well researched factors and taken into account as part of the spread stage.

Are these attributes a measure of spread and adoption?
It was found that certainly the attributes added to knowledge, learning and communication but spread and adoption is "*a marathon, not a sprint*", as the breast improvement work illustrates. It has taken four years to reach this stage, working with the majority of early adopters. Although other Trusts outside of the spread networks have adopted the new pathway the evidence of this is based on HES length of stay data.

Application of Rodgers Attributes Influence Spread and Adoption

Rate of adoption: National HES data provided the national picture and benchmarking of progress, related to the shift in length of stay, potential number of bed days released and the trends.

Spread survey

NHS Improvement conducted a wider spread survey (2010): This identified that there was an increasing uptake of NHS Trusts applying Winning Principle 2 (NHS Improvement Transforming Inpatient Winning principles 2009) particularly associated with the breast surgery pathway.

Winning Principle 2
All patients should be on defined inpatient pathways based on their tumour type and reasons for admission.

Complexity: Local baseline of compliance with the elements of the breast surgical pathway were captured by the spread sites carrying out a pathway analysis reviewing their current practice.

Relative advantage, complexity and trial: A four month national audit (November 2010 to March 2011); completed by 61% of spread sites provided important insights. Data was collected on 2,087 patients, 666 mastectomy patients, and 1,421 wide local excision and other breast procedures (cancer and non cancer).

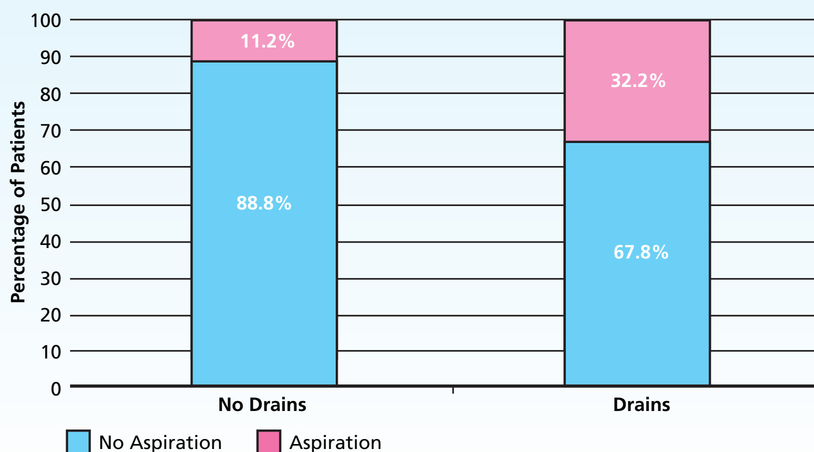
The purpose of the audit was threefold; to measure progress towards compliance against the elements of the pathway, identify the changes in practice and to capture the views of patients who had experienced the new pathway.

The audit incorporated areas identified in the National Mastectomy Audit report 2010 and the national inpatient survey (2010).

Breast pathway audit results

Wound drains
The audit showed there continues to be clinical variation in the usage of wound drains and identified that patient's with wound drains required 21% (Figure 9) more aspirations than the patients without drains.

Figure 9: Patients who had drains required 21% more aspirations



The audit indicated a shift in practice:

- There was an increase in the number of patients not having wound drains
- Patients are now having drains removed prior to discharge
- Patients are now being discharged home on the day of surgery with their drains in situ.

Traditionally, patients would have remained in hospital until the drain was removed. Results showed that the impact on primary care of patients going home with drains in situ has been minimal.

The audit showed that only 31 patients were reluctant to go home with drains in situ. Sixteen patients stayed in hospital between three days to eight days until their drains had been removed (Figure 10). Although the numbers are small the impact on bed days is significant.

Clinical teams are continuing to conduct local audits associated with wound drains, particularly looking at the cosmetic effects when using drains compared to no drains.

Figure 10: Length of stay increased for sixteen patients as a result of having a drain

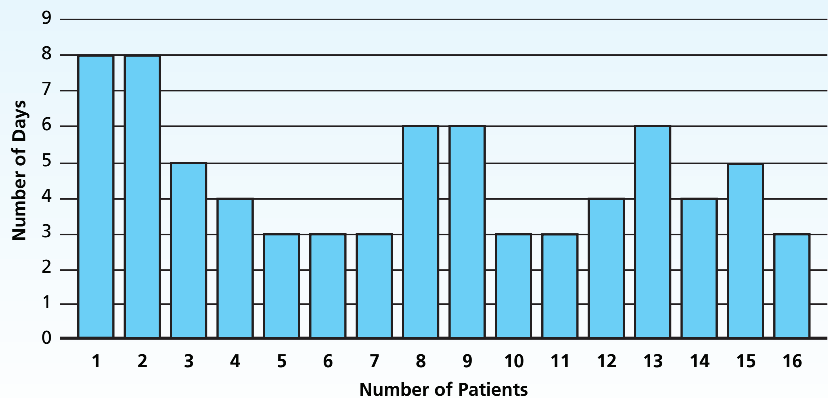
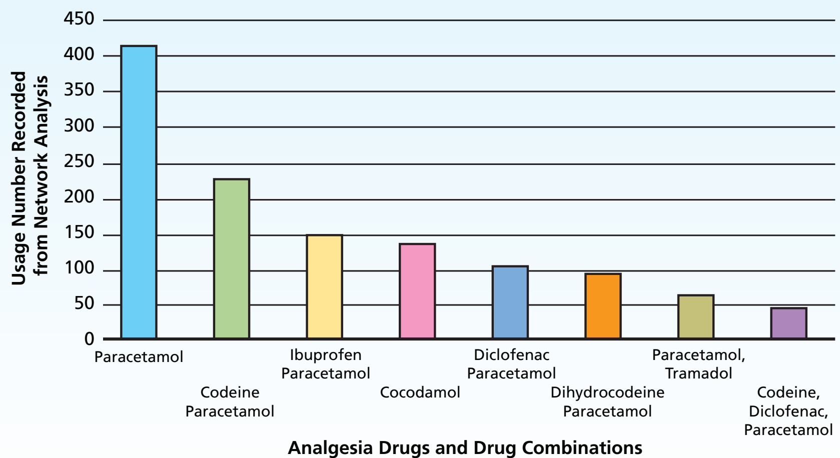


Figure 11: 30% of patients said they did not require any analgesia



Pain control

- Pain control was a key feature of the audit. Concerns had been raised by patients and clinicians that reducing length of stay relies on the patient receiving adequate pain control. The audit found the majority of patients pain was controlled with paracetamol
- 30% of patients reported that although they had only been in hospital as a day case or one night stay they had not needed to take any analgesia at home (Figure 11)
- The audit found that analgesia for mastectomy should be multimodal. Various combinations of paracetamol plus one or more local anaesthetic technique are able to provide effective analgesia.

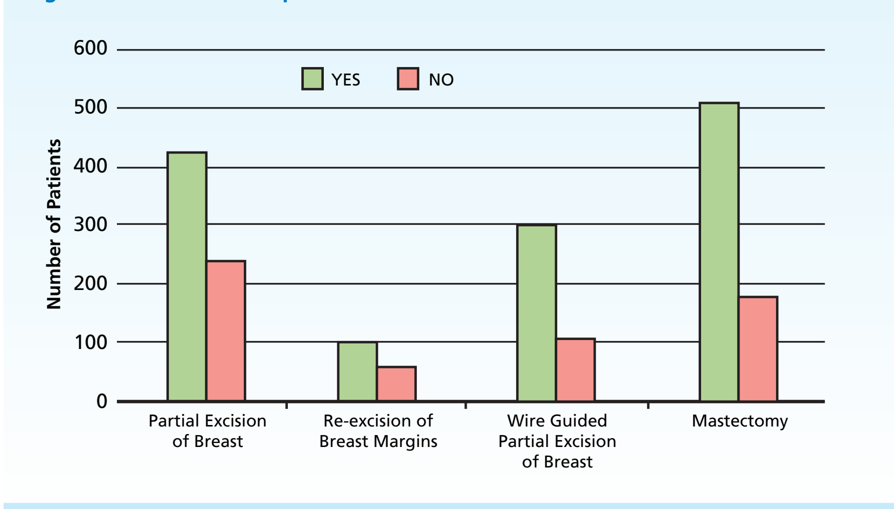
"The centres that have successfully implemented 100% day case or one night stay mastectomy have combined either oral or intravenous paracetamol, often commenced preoperatively, with one or more local anaesthetic technique i.e. local infiltration, installation of local anaesthetic into the wound and/or peripheral nerve blockade."

Martin Kuper, Consultant in Anaesthesia and Intensive Care Medicine, The Whittington Hospital NHS Trust and NHS Improvement Enhanced Recovery National Clinical Lead

Arm and shoulder exercises

- The redesigned pathway introduced arm exercises prior to surgery in contrast to traditionally post-operatively. Patients pre-operatively received information and were shown exercises. The audit found that 30% of patients reported that they did not do any arm exercises post discharge (Figure 12).

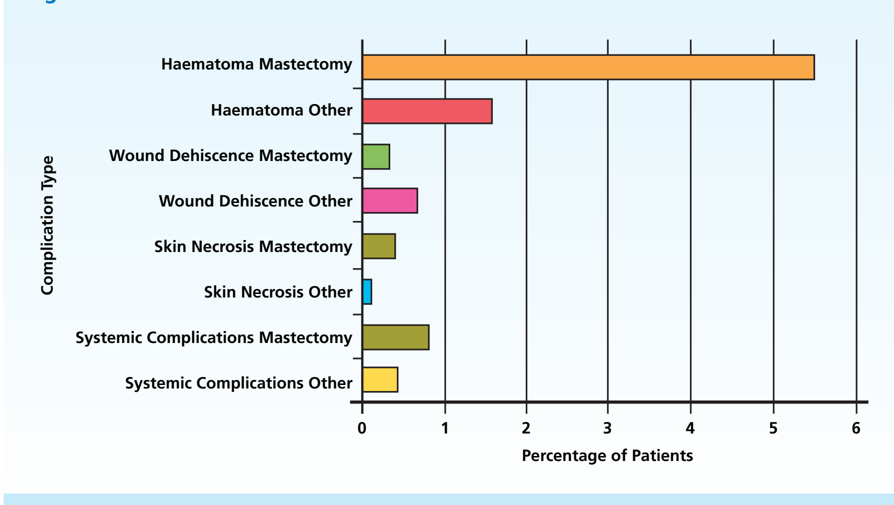
Figure 12: Patients who performed shoulder exercises



Re-admission rates

There was an assumption that reducing the length of stay would increase re-admissions. The audit showed a 2% re-admission rate, which is below the national average 3.2% (HES 2010), The main cause for re-admissions requiring therapeutic intervention are shown in Figure 13.

Figure 13: Main causes for re-admission



Length of stay - from days to hours

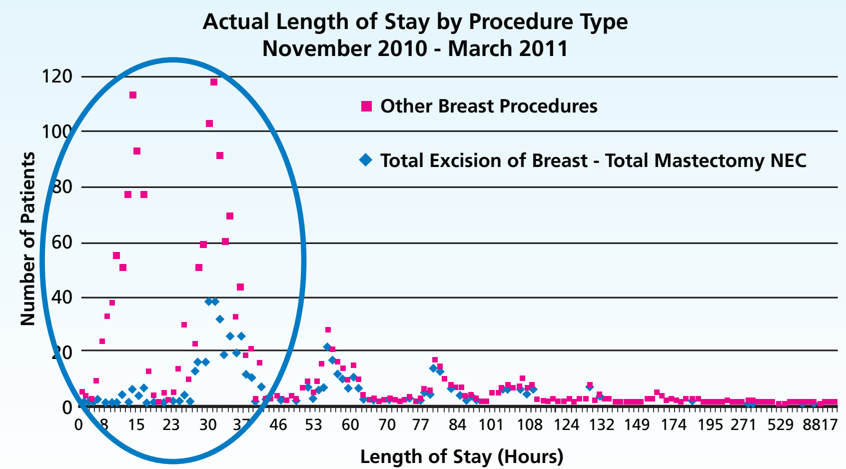
The audit established the length of stay in hours, highlighting a shift in practice as length of stay is traditionally recorded in days. (Figure 14) Importantly, this provided the evidence that the original definition of 23 hours was not accurate. Variation in admission times and theatre scheduling across the spread networks needed to be taken into consideration leading to the revised definition, breast day case or one night stay pathway.

Delays in discharge

The audit highlighted that 10.5% of patients had a delayed discharge, the reasons recorded were:

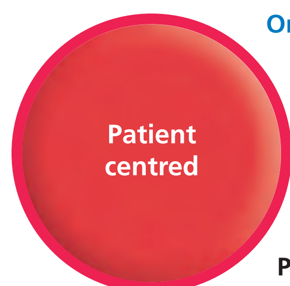
- Patients did not want to go home with a drain in situ
- No local drain policy re discharge home with drains in situ
- No one at home and delayed social care package, not noted pre-operatively
- Changes in the initial extent of surgery: Immediate reconstruction, bilateral mastectomy
- Nausea
- Awaiting medical decision
- Other medical problems
- Booked as an inpatient!

Figure 14: Shift from traditional inpatient to day case or one night stay



Transforming Inpatients Framework for Spread application in practice

4. Patient centred



One of the strongest influences for spread is the 'patient's voice.'

Patients were involved in the redesign of the pathway and told us:

"Being diagnosed with breast cancer can be a difficult transition to make, one day you are a healthy person, the next you are a patient with cancer."

Patients talked about how:

"Unnecessary waits, procedures and sitting around in beds increased anxiety."

Patients stressed:

"We want to get back to normal as soon as possible."

"The new pathway should value our time."

"Treat me as a person not a cancer patient."

Patients have evaluated the new breast pathway positively
The patients' experience has been captured in various ways:

Patients have been recorded on film sharing their experiences: www.improvement.nhs.uk

"I was in at 7am, sitting up with tea and biscuits at 11am, home for tea by 3pm and out dancing at a party on Saturday night."

"Just because you are older does not mean you have to stay in hospital longer."

"Highly recommended - day surgery is better."

Patients challenged professional assumptions
Nurses and doctors at Kings College Hospital NHS Foundation Trust found patients were asking to go home. Raising the question why are we keeping patients in? Patients also asked to go home at Northampton General Hospital NHS Trust, George Eliot Hospital NHS Trust and Derby Hospitals NHS Foundation Trust.

Frequently concerns were raised by professionals particularly nurses that reducing the length of stay could lead to patients not receiving adequate communication, information and support. The audit of over 2,000 patients (2010) who experienced the new pathway indicated this not to be the case (Figure 15). The results are comparable with the National Patient Survey (2010).

Figure 15: Audit of 2,000 patients who experienced the new pathway
(Four questions taken from the National Patient Survey, 2010)

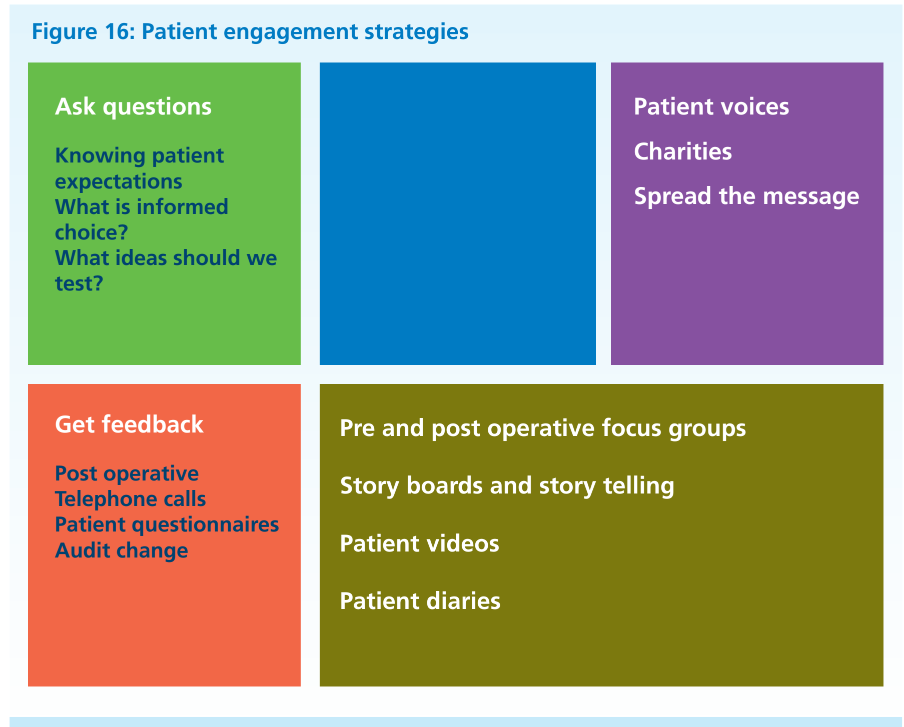
	Patient survey question	Response
Q1	Were you involved as much as you wanted to be in decisions about your care and treatment?	**92% Yes definitely** (mastectomy and other procedures)
Q2	How much information about your condition or treatment was given to you?	**93% Right amount** (mastectomy) **94% Right amount** (other procedures)
Q3	Did you feel you were involved in decisions about your discharge from hospital?	**77% Yes definitely** (mastectomy)
Q4	Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?	**83% yes definitely** (other procedures) **94% Yes** (mastectomy & other procedures)

Independent patient evaluation

Patient focus groups were held as part as an independent qualitative study of experiences of the pathway (Health Experiences Research Group University of Oxford 2011). The 13 national clinical networks were invited to participate in the study by inviting their patients to take part.

Different patients views are a key factor to spread
Different strategies for patient engagement and involvelment were used across the spread networks (Figure 16).

Figure 16: Patient engagement strategies



Independent evaluation findings:

"Patients were often surprised that they could be treated on a day case or one night basis. Some patients and their friends and family, were initially suspicious about whether the service was driven by a desire to cut costs. Experiences in hospital (waiting for surgery, communication and information, quality of care, emotional support and discharge) were described positively and acted to reassure patients that their care would not suffer, despite short stays.

This positive experience was slightly undermined if hospital staff appeared critical of short stay."

(Barlow et al 2011)

Transforming Inpatients Framework for Spread application in practice

5. Spread simple principles and messages

The concept of spread networks as a forum of communication has been key to spread messages and make interpersonal links to influence others.

The success of the approach relates to its affiliation with the common purpose; and a "group of knower's."

(**Driver A,** 2011)

Interestingly, it was found that although the spread networks were geographically located, the informal networks across geographical areas were often stronger, particularly with clinicians.

Through using simple messages which relayed information, principles and sharing practices on the ground knowledge was enhanced and discussions and conversations were stimulated.

"First of all we had to overcome our own preconceptions of patient's opinion about a shorter stay in hospital. We thought patients would find the shorter stay unacceptable and patient anxiety levels would increase; but, we did not find this to be the case."

Royal Bolton NHS Foundation Trust (2011)

Patients traditionally stayed in hospital for as long as six days, now the majority are home the same day or after one night. Patient's challenged professional beliefs of not wanting to be in hospital. There was:

"Reluctance on the part of some staff to discharge patients sooner and with a drain."

Burton Hospital and Kings Mill Hospital overcame the issue by holding education events for ward nurses and feeding back patients positive comments.

Concerns were raised about the reduction in the length of stay being detrimental to patients psychological/ physical well being. The recent audit of patients (80% response) indicates that there has been no adverse effect, but the foundation for this lies with good pre-operative assessment and informing patients that they will be going home on the day of surgery or the following day right from the beginning. (Clinical Networks 2010).

"Changes in clinical practice have had a positive effect with other procedures, for example patients having a therapeutic mammoplasty, now also only have a single night's stay."

Geraldine Mitchell, Consultant Breast Surgeon, Royal Liverpool and Broadgreen University Hospitals NHS Trust

"More challenging was convincing some of the hospital staff that the day case or one night stay ambulatory care was achievable for patients having mastectomy and axillary node clearance. However, confidence in the process has grown substantially with implementation and successful outcomes."

Yeovil District Hospital (2011)

Across the clinical spread networks, coversations about patient experience and satisfaction highlighted that the pathway was received positively.

"Patient feedback has been extremely positive, patients reported they were involved in their care, treatment and discharge and received sufficient information."

Southport and Ormskirk Hospital NHS Trust (2011)

Wider conversations
Breast charities and patient groups played an important contribution in helping to spread the messages about the new pathway. It has been really encouraging to see patient's reviews www.independent.cancerpatientsvoice.org.uk

"We showed that not only is this pathway acceptable to the great majority of patients but that it is genuinely preferred by them, and that this can be achieved without any compromise in the quality of care with patients feeling empowered to make decisions and choices."

National Clinical Spread Networks (2011)

Simple messages... hints and tips

For the health community

- Increase dialogue across the health community improves working relationships with primary care and provider colleagues
- Spread sites arranged training events for community staff and some planned GP site visits to inform colleagues of the improvements
- Review and share patient information with community colleagues as early as possible
- Reassure GPs the new pathway does not increase their workload
- Communicate to GPs, practice nurses and district nurses that patients will be discharged home earlier and safely because they are better sooner
- The new pathway focuses on quality and safety not pushing patients through faster to save money
- The changes in anaesthetics have allowed patients to recover more quickly following surgery
- The breast pathways aim is to 'get back to normal as soon as possible'...."*Home in time for tea.*"

For pre-assessment

- Managing patient's expectations from the beginning has been key. Patients need to be advised at the outset of their likely length of stay which is reinforced by the whole team throughout the pathway
- Physiotherapists and breast care nurses see patients at pre-operative clinic providing earlier support and risk management
- Pre-assessment is a vital part to the success of the pathway.

For admission and discharge

- Staggered admission times are possible and reduced unnecessary waits for patients
- Nurses like nurse led discharge. They have reported this increases job satisfaction, skills base and knowledge allowing them to manage their work load more effectively
- Pre-prescribed discharge medication (TTOs) on admission and pre-packed TTO on the day unit/ward prevents discharge delays
- Consultants have said that the ward rounds are now able to focus on patients requiring more medical input and they have achieved a reduction in length of stay without detriment to the patient
- Patients are not left without support: 24/7 cover and telephone advice/support lines and follow-up support calls are available to patients.

To access the recent success stories from across England on delivering major breast surgery as a day case or a one night stay (excluding reconstruction) case studies and for further information please visit: www.improvement.nhs.uk/cancer

"It's do-able, safe and patients want to go home."

National Clinical Spread Networks (2011)

Transforming Inpatients Framework for Spread application in practice

6. Alignment with opportunities and levers

Alignment with opportunities and levers

Alingment with different opportunities, levers and drivers contributed to the pace of spread and sustainability of the pathway (Figure 17). The range of levers included:

- Policy
- Professional
- Patients
- Performance
- Payment
- Purchasing
- Practice.

The levers were useful as they highlight the connectiveness involved and show that spread is not a one dimensional approach.

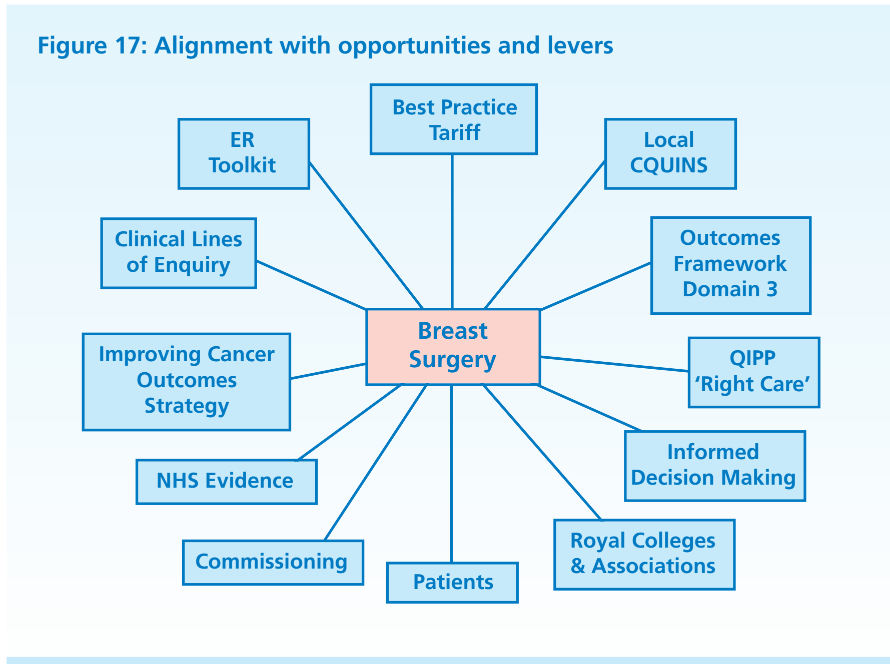
The breast pathway has been well received.

Professional endorsement

"We have pleasure in endorsing this; it looks like a fabulous piece of work that ticks every box with our own promulgated ethos of a planned pathway and evidence based care that not only improves quality, but also efficiency of care."

Dr Mark Skues, President Elect, British Association of Day Surgery

Figure 17: Alignment with opportunities and levers



Support from charities

"We welcome the introduction of the day case or one night stay breast surgical pathway as this should mean increased choice and the option of a shorter stay for patients where this is clinically appropriate. As this model is rolled out across the NHS, we hope that there will be a strong focus on providing patients with clear information about their options for surgery, including expected length of stay, risks and benefits to enable them to make an informed choice about their care."

Maggie Alexander, Policy and Campaigns Director, Breakthrough Breast Cancer

Recommended best practice...
NHS Evidence
The day case or one night stay breast surgical pathway has been recommended as best practice supporting the spread of knowledge in the NHS www.evidence.nhs.uk

Incentives... Commissioning for Quality and Innovation Payment Framework (CQUINS)
It has been important to continuously align this work to support spread and adoption. Incentives such as CQUINS can be useful (Department of Health, (CQuins) Payment Framework 2010).

Local quality indicators CQUINS provide a higher priority for delivery locally increasing the rate of spread, providing positive benefits for clinical teams but whilst not a primary driver is helpful to start getting teams on board Figure 18).

Breast surgery has been included in the set of exemplar CQUIN goals
Provider Sector: Acute

Figure 18:

Description of goal	To improve the quality, safety, outcomes and productivity of breast surgery
Description of indicator	Number of patients having breast surgery as a day case or one night stay
Numerator	Number of patients having breast surgery as day case or one night stay in the Trust
Denominator	Total number of patients having breast surgery in the Trust
Rationale for inclusion	The day case or one night stay breast surgical pathway has been developed as a good practice model by clinicians and endorsed by the British Association for Day Surgery. The new pathway has been widely welcomed by cancer and non-cancer patients

Breast Surgery Best Practice Tariff (BPT)
BPTs are prices set as part of the national tariff list to financially incentivise providers to adhere to evidence based best practice. The breast surgery BPTs proposed for 2012/13 are designed to encourage breast surgery to be carried out as a day case where clinically appropriate. Performing these procedures as a day case offers advantages to both the patient and the provider; the British Association of Day Surgery (BADS), advise that patients prefer to recuperate in their familiar home environment, while providers benefit from reduced pressure on inpatient beds. The breast surgery BPTs proposed for 2012/13 represent an expansion to the scope of the procedures covered by the 2011/12 BPTs, with some changes to the day case rates where appropriate (Appendix 1).

Incentives such as CQUINS and BPT can be useful but there needs to be careful consideration about the plans in place to ensure sustainability post incentive.

Commissioning
"Patient experience should be important to commissioners and GPs in particular. Commissioning services that provide a high quality patient experience will be a Key Performance Indicator (KPI) for the new consortia."

Dr Alan Nye, Principal in General Practice, Oldham and NHS Improvement Enhanced Recovery National Clinical Lead

National cancer action team

Sharing the outcomes with commissioners has promoted re-investment to ensure patients are provided with comprehensive pre-operative assessments and follow up services e.g. post operative phone calls. It is paramount that local coding issues are resolved and any money saved should be reinvested back into the pathway.

Clinical lines of enquiry
The day case or one night stay breast surgical model is being piloted in the clinical lines of enquiry with key clinical indicators for peer review (National Cancer Action Team, 2010).

NHS Outcomes Framework
The redesigned breast surgical pathway aligns to the NHS Outcomes Framework (DH 2010) particularly domains 3, 4 and 5.

DOMAIN 3: Helping people to recover from episodes of ill health or following injury

DOMAIN 4: Ensuring that people have a positive experience of care

DOMAIN 5: Treating and caring for people in a safe environment and protecting them from avoidable harm

Improving Cancer Outcomes Strategy (2011) is about improving the quality of services and improving efficiency and breast services make an important contribution.

"We know that offering appropriate patients the opportunity to have their breast cancer treated as a day case or a one night stay rather than as an inpatient improves their experience and reduces their length of stay saving commissioners money."

Improving Cancer Outcome Strategy
(Department of Health, 2010)

Quality, Productivity, Innovation and Prevention (QIPP)
The changes to the patient pathway from a resource perspective have mostly been managed through streamlining and re-allocation of skill mix and time. This supports previous findings that the day case or one night stay breast surgical model is cost neutral.

The Anglia Cancer Network analysed payment by results comparative data that was readily available for all Primary Care Trust's (PCTs). By comparing the current cost and potential savings of the breast day case or one night stay model they concurred that the model was cost neutral. Clinical engagement has been the driving force for the change.

"This pathway did not require additional resources or investment, only a change in practice and culture."

Northwick Park Hospital

This service improvement work has demonstrated that by improving quality a by product is efficiency savings:

"The average stay for women undergoing mastectomies and other breast cancer surgery has fallen from five days to less than one, and the Trust has saved an estimated £300,000 a year."

Hamish Brown, BMA Quality Time: November 2010, 8 9)

Lancashire Teaching Hospital NHS Foundation Trust changed their practice:

"Routine chest x-rays have ceased pre-operatively, only patients with pre-existing conditions are now x-rayed. Under service line reporting this has created a saving of £24.41 per patient."

Transforming Inpatients Framework for Spread application in practice

7. Leadership, engagement and accountability

Leadership and engagement from clinicians and managers throughout the four years of the service improvement phases has been crucial. Clinicians' attitude and belief in the pathway was a key driver, once they acknowledged the patients views and challenged their own thinking.

There has been a variety of leaders, opinion makers and champions involved. Some have led from the front, whilst others have pushed from behind, some have been participative and others directive. We utilised all the different styles to encourage engagement and commitment for spread.

Future ambition
What has become apparent is that clinicians want to take the breast surgical pathway further and apply the principles to other surgical procedures. Some clinicians have taken the lead to explore breast reconstructive surgery as more patients may opt for reconstruction at the time of their mastectomy operation. These clinical leads are testing how the principles could be applied.

The opportunities for breast surgery are shown in Figure19, these fit well with the enhanced recovery principles as shown by the evidence based review of enhanced post operative recovery after breast surgery (Arsalani-Zandeh et al 2010). www.improvement.nhs.uk/enhancedrecovery

Figure 19: Applying the principles further

Proposed procedure	Length of stay	Changes in clinical practice
Wide local excision	Day case	No wound drains
Wide local excision and axillary node clearance	Day case	No wound drains
Mastectomy and sentinel lymph node biopsy	Day case	No drains
Mastectomy and axillary node clearance	Day case or one night stay	No drains or home with drains
Reconstruction impact/expanders	One night stay	
Latissimus dorsi flap LD	Reduce length of stay	Enhanced recovery Accelerated discharge
Abdominal DIEP	Reduced length of stay	Enhanced recovery Accelerated discharge
Abdomen (Transverse rectus abdominis muscle) TRAM	Reduced length of stay	Enhanced recovery Accelerated discharge

Summary

The last four years of service improvement in breast surgery has shown that major breast surgery can be delivered safely as a day case or one night stay. Patient quality, experience outcomes and re-admission rates are not compromised and importantly "patients prefer not to stay in hospital."

The evidence is clear that unnecessary lengths of stay are reduced and changes in clinical practice support patients "getting better sooner."

The original working hypothesis of: "The streamlining of the breast surgical pathway could reduce length of stay by 50% and release 25% of unnecessary bed days for 80% of major breast surgery (excluding reconstruction)." This has been exceeded and demonstrates the further potential of achieving 85% with continued spread and adoption.

The success of the pathway lies in clinical and patient engagement: Managing the patient's expectations at the beginning of the pathway by having a good pre-operative assessment and anaesthetic technique combined with clear communication across the multidisciplinary team and health community. Variation in the management of wound drains remains, but the evidence base continues to be developed.

The efforts for the continuing spread and adoption of the day case or one night stay breast surgical pathway continues locally and nationally. It is envisaged that with the advancing clinical evidence, the day case or one night stay pathway will become the norm and more patients are:
"Home in time for tea".

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NHS Improvement (2010) Transforming Inpatient Care Programme Spread Survey (October 2010)

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Case studies

Detailed case studies from the 13 Clinical Spread Networks are available on the NHS Improvement website:
www.improvement.nhs.uk/cancer/inpatients

Websites

Association of Breast Surgery (ABS):
www.associationofbreastsurgery.org.uk

BASO:
www.baso.org.uk

Breakthrough Breast Cancer:
www.breakthrough.org.uk

British Association of Day Surgery (BADS):
www.bads.co.uk

Department of Health
www.dh.gov.uk

Department of Health: Quality, Innovation, Productivity and Prevention (QIPP)
www.dh.gov.uk/en/Healthcare/Qualityandproductivity/QIPP

Independent Cancer Patients' Voice:
www.independent.cancerpatientsvoice.org.uk

National Inpatient Survey 2010
www.cqc.org.uk/node/1667

National Mastectomy Audit Reports
www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/audit-reports/mastectomy-andbreast-reconstruction

NHS Evidence
www.evidence.nhs.uk

NHS Improvement Enhanced Recovery
www.improvement.nhs.uk/enhancedrecovery

Appendix 1

Explanatory notes on the Dataset underlying Figures 2, 3 and 4.
This is based on a Procedure Based Cut of Relevant Breast Procedures extracted from HES Inpatient or Day Case Episodes Between 1st April 2006 and 31st May 2011 (inclusive).

- Episode data has been converted to a Procedure based cut, for one record per relevant breast procedure. Therefore if an episode contains more than one 'relevant' procedure, each procedure will be counted separately
- 2010/2011 Version 13 and 2011/2012 v2 are provisional data only.
- Elective admission method group, includes both elective admissions and transfers
- For a list of breast procedure codes included in this cut, see below
- Procedures have been identified as having a reconstruction if the relevant reconstruction code appears in the same episode.

Filters applied in this analysis (on all sheets)
- Admission Method Group = Elective
- Reconstruction = False (procedures are excluded where a reconstruction occurs in the same episode as the procedure)
- Diagnosis = All (cancer and non-cancer).

Note: Most of this analysis also only includes mastectomy and other excisions of breast (and excludes diagnostic procedures and other operations) except sheet "National-Proc1 0607 1112" which clearly shows numbers for each procedure group.

Breast Procedure Codes relevant to this extract

Included:	
Mastectomy	B271-B276, B278, B279
Other Excision of Breast	B281-B289
Excluded	
Diagnostic Procedure	B321, B322, B323, B328, B329
Other Operations	B31, B311, B318, B319, B341-344, B35, B352-B355, B374, B401, B408, B409
Reconstruction	B291-B294, B298, B299, B301, B308, B309, B361-B363, B368, B369,B381, B382, B388, B389, B391, B392,B393, B398, B399

The BADS Directory of Procedures (3rd edition) suggests day case rates which should be achievable in most cases, but also set certain caveats which mean that these rates may not be achievable. The BADS directory of procedures is available at:
https://www.daysurgeryuk.net/bads/shop/shopdisplayproducts.asp?id=9&cat=BADS+Publications

Further information

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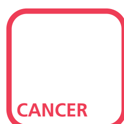

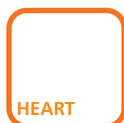

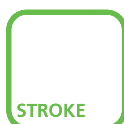

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