

**Service evaluation report for the
Fast track pathway to avoid preoperative biliary drainage**

Health Services Management Centre

January 2017

Introduction

This report summarises the findings of a service evaluation of a fast-track pathway to avoid preoperative biliary drainage for Pancreatoduodenectomy for periampullary cancer and biliary obstruction.

The appropriate and timely transfer and care of patients from primary to secondary care and on to tertiary care in centres offering specialist surgery is critical for the successful implementation of the proposed pathway. A specific part of this evaluation was therefore to consider the barriers and enablers to the changes in practice required of referring units. It was also suggested to the research team that one of the barriers to implementing this pathway might be the perception of UHB's ability to deliver the new pathway, as a result of historical issues regarding capacity and timeliness and this was also explored with interviewees.

The focus of this report is therefore on the following aims:

1. Ascertain the extent to which the new pathway has been implemented within UHB
2. Explore the reasons for successful/partially successful or unsuccessful implementation of pathway
3. Explore dysfunctional consequences of implementation of pathway

Methodology

Our approach for this element of the evaluation comprises of two main elements:

- Qualitative interviews with clinical and non-clinical staff working within UHB (the receiving unit) and other NHS organisations (the referring units)
- Observation of MDT meetings

Ten semi-structured interviews were completed. The interviewees were purposively sampled in order to gather the experiences and perspectives of those involved in setting up, referring into and delivering the service. The topic guide for the interviews was developed by the researchers following a number of key informant interviews. The majority of interviews were carried out by telephone with a small number face-to-face. With participants' consent, the interviews were recorded. A thematic analysis of the qualitative data was carried out, involving the initial identification of analytical themes derived from the research questions. The aim of this analysis was to aid our understanding of the factors that support or hinder the delivery of the new pathway.

Background

Pancreatic cancer is the tenth most common cancer but is predicted to overtake breast cancer as the fourth most common cause of cancer death by 2030 (<http://www.cancerresearchuk.org/>). Surgery which offers the only chance of cure is delivered in specialist centres. The current pathway for patients with pancreatic cancer can be slow and can expose patients to procedures which may offer limited diagnostic or therapeutic benefit. These procedures delay the time to surgery, thus risking cancer progression; are costly, and are associated with significant morbidity. A parliamentary inquiry into pancreatic cancer - *Time to Change the Story: A plan of action for pancreatic cancer* (APPG, 2013) identifies key recommendations which include improved diagnosis and a wholesale review of pathways for pancreatic cancer patients including rapid access clinics.

Patients with pancreatic cancer typically present with jaundice. This triggers a referral or presentation to local secondary care services where investigations are focussed upon the biliary tract – this usually involves ultrasound followed by CT imaging. These identify bile duct dilation caused by obstruction within the pancreas. Patients then usually undergo endoscopic stenting of their bile duct (ERCP) in secondary care. This procedure is invasive, and is associated with significant cost and clinical risk. If the patient develops severe pancreatitis which is not an uncommon complication, there will be delays to surgery, or curative surgery may prove subsequently impossible to carry out; in severe cases it may directly cause death. Furthermore episodes of biliary infection may occur between the time of biliary stenting and surgery. These typically require hospital admission and intravenous antibiotics, which again delays the possibility of curative surgery.

Secondary care physicians will often wait for pathology results from the biliary brushings taken at the time of ERCP before considering referral to specialist pancreatic teams – these may prove inconclusive and can lead to further delays in the pathway. It is however safe to proceed straight to surgery without biliary stenting and studies have shown complications to be higher with preoperative biliary drainage than when patients proceed directly to surgery in the presence of jaundice (Fang et al, 2013). The aim of the new pathway is to reduce the time to seeing specialist teams and to reduce unnecessary procedures. This should reduce costs and complications of treatment. The ultimate aim is to improve the patient experience and outcomes.

The pathway

A patient presents with jaundice at a referring unit. The patient has a CT which shows a pancreatic mass and at an upper GI MDT in the referring unit, the team decides that it looks operable and instead of stenting and referring to a tertiary centre, the patient is referred without stenting. Patients are started on Creon and Vitamin K at the referring unit and are offered the next available MDT slot at UHB. The relevant MDT takes place on a Thursday afternoon and patients deemed suitable for the fast-track pathway are seen for a joint surgical/anaesthetic assessment at the following Friday morning clinic.

At this point, and if suitable for surgery, the patient has a pre-screening and anaesthetic review at the same clinic appointment and a Cancer Nurse Specialist counsels and consents the patient. The patient is given a date for surgery the following week and a bed is booked in ITU. The patient is admitted to the ward pending surgery (if the patient lives close to or can easily get to hospital for 7am there is an option to keep them at home whilst waiting for surgery). Once the patient has been operated on, the next fast-track patient in line will be admitted and so on. If there are no fast-track patients waiting for surgery, the dedicated theatre capacity will be used for other patients that were either cancelled for elective (non-urgent) surgery, or for time critical cancers/other semi emergency work. There is enough volume of activity at UHB to ensure that theatres are not sitting 'idle'.

Research Findings

Overview

It was apparent from interviewees that there was a legacy of attempts to get a fast-track service up and running within UHB but that previous attempts had not been sustained. It would appear that the success of the current initiative can be attributed to a combination of a number of factors; these include senior level commitment within UHB; the presence of a committed clinical champion, with support from an enthusiastic directorate manager; the allocation of dedicated theatre time and a revising of consultant job plans. In summary, the introduction of the fast-track pathway has been made possible through an alignment of strategic and operational goals within the organisation - those of increasing the workload of the unit and reducing waiting times.

'...it's been something we've been talking about within the hepatobiliary/pancreatic circles for quite a while, and then the UHB pancreatic unit have thought about this for a number of years; it's just never come to being actually, you know, put into fruition, so it's perhaps a – I think an investment in labour from the UHB team which has come to success now.'
(Interviewee 5)

'...we have huge pressure on our elective bed capacity and if our elective beds are occupied by patients with emergency acute problems, well it reduces our elective capacity, so historically going back for the past few years, we've had big, big problems with capacity, so if we can work efficiently...and the management are obviously very keen on this, ... they've seen the bed occupancy for our unplanned admissions and they can see the benefits.'
(Interviewee 10)

Overall, interviewees viewed the introduction of the fast-track pathway as a 'no-brainer' clinically and financially.

'Everyone, I think, is in agreement that that has to be beneficial to the patient. And also, it saves money. ... it seems to be very clear that if they have their surgery quicker, without having the stenting procedure first, that it will lead to better outcomes and quicker hospital admissions.' (Interviewee 4)

'...it's not nice for the patient and it's expensive, so no part of the (current) pathway is logical and it just seems that the NHS, the patients and the cancer would be much better served by a straight to surgery approach.' (Interviewee 10)

Though there was no contention about the introduction of the pathway from those people interviewed, the researchers struggled to engage clinicians generally in the study. This resulted in fewer interviews being undertaken than had been originally planned. There are two possible explanations for this lack of engagement - the first is that busy clinicians did not prioritise taking part in the study because they did not feel they had much to contribute. This might relate to the fact that the pathway had been introduced with little disruption to normal working practices. There is an alternative explanation which is that a lack of engagement from a wider group of clinicians might indicate a lack of support for the pathway. The research team found no evidence of the latter but indications that would support the former explanation.

The context for implementation

Nationally, the picture is one of overall increases in activity in liver and pancreatic work (NHS England, 2013) and interviewees felt that units around the country would be struggling with capacity.

'...units that we're in contact with around the country definitely talk about some of the challenges they have in being able to get patients into surgery as quickly as they'd like to in terms of the availability of theatres ... so I'm definitely aware that it's a problem for other places.' (Interviewee 7)

The research team was advised that a Waiting Time Initiative had been implemented at UHB in Sept/Oct 2014 in order to address breaches in the cancer pathway targets which were reported as having arisen because of the conflicting demands between liver transplants and the growing demand of HPB surgery. This resulted in the provision of short-term additional theatre capacity but after a second initiative was implemented in June 2015, extra theatre time of 10 hours a week was made permanently available for the unit.

This additional capacity is viewed as a cost pressure to both Division A (Theatres, nursing and anaesthetists) and Division B (Surgeons) within UHB and therefore requires the support of both for the arrangement to continue. Though this capacity has been ring fenced, it is possible that if waiting times continue to increase as they have been across the system, (King's Fund, 2016) then Waiting List Initiatives may be introduced which potentially compromise this theatre capacity.

'...actually theatre time and theatre space is at a premium now and almost coming to a point where there isn't any more to give...' (Interviewee 6)

It was noted that hospital activity related to Liver transplants has increased – in 2015/16 UHB over-performed to contract by 13 liver transplants (Interviewee 6). It was suggested that this increase in activity is likely to continue in future years raising the prospect of further demands on capacity. It was reported by several interviewees that the balance between liver transplants and cancer work has been the subject of a significant amount of discussion within the organisation and the tension between undertaking time critical transplant work and cancer surgery which is subject to stringent waiting time targets is ever present. The cancellation of operations is also a quality measure for Trusts and reducing these is clearly a management as well as a clinical objective.

‘...most units, which are transplant units, you know, transplants get prioritised, so often cancer patients will get cancelled in order to do an urgent transplant because of lack of availability of theatre space’ (Interviewee 5)

‘We cancel probably about a third of our major surgery for transplant activity and rearrange it with all of the associated inconvenience and anxiety for patients. So there were some attractions and merits in having some flexibility about whether one operated on patients with pancreatic cancer ... So there maybe benefits to patients in terms of them getting their operation sooner and there maybe benefits to us in terms of reducing our cancellation rates’. (Interviewee 8)

The temporal tensions inherent with certain surgical procedures are clearly a significant factor to take into account in units that combine liver transplant work and non-transplant surgery. However, more recent technological developments do mean that livers for transplant can be kept viable outside of the body for longer which allows more flexibility in the timing of transplant operations. UHB has invested in the technology which allows organs for transplant to be kept viable for longer and this development is also a facilitator for the introduction of the fast-track service.

Operational factors

The nature of the disease and its progression means that the number of patients eligible for the fast-track pathway is small in comparison to the pool of patients diagnosed with pancreatic cancer. This has allowed the unit to accommodate such cases without difficulty.

‘... less than 10% of patients we will see with pancreatic cancer are actually operable. And of those 10% probably another, you know, 10 or 20% are ones who would be suitable to be referred, purely because the remainder either have problems with cardiorespiratory disease or they may be unwell with jaundice and need intervention... patient selection narrows it down that much, to about sort of maybe a couple of patients a month.’ (Interviewee 5)

The unit has a theatre planning team which meets every Tuesday morning to plan theatre lists for the fortnight ahead. Two spaces are left a week for fast-track patients and if these are not used, they will be used for another patient on the waiting list or for a patient that might have previously been cancelled as a result of a liver transplant being performed. The slots are therefore never wasted. This flexibility does require a significant amount of organisation and the Unit has recruited an extra member of admin staff to help support the theatre booking process.

'...there's been a whole time equivalent Band 3 go in to the team over and above what we had before and this is really necessary because of the constant changing...'

(Interviewee 6)

The unit also benefits from pooled waiting lists between surgeons and an annualised job plan for Consultants, both of which are reported to allow for increased operational flexibility. In addition, a Consultant job planning exercise in 2015 showed that the Unit's Consultants were all doing a significant amount of work over and above their job plans. This was highlighted as a risk within the Directorate's risk register and the unit was therefore subsequently able to recruit a Liver Fellow in 2015 to release surgeons for theatre sessions.

'...it releases the Surgeons to cover the theatre sessions - in terms of our kind of hierarchy of priorities covering every theatre session is the number one priority...' (Interviewee 6)

The need to effectively coordinate all of the information and tests required before a fast-track patient can undergo surgery was recognised by the Unit as an important factor in the smooth running of the pathway and the Unit as a whole and the appointment of someone to manage this has been a preoccupation.

'...there's quite a lot of coordination required ...for example look at blood results that were done in the GP on Thursday if we're going to bring the patient to clinic on Friday ...and if the patient is much worse or much better ... we very much need that clinical sensibility to ask the right questions of the right people...' (Interviewee 6)

'...there's quite a lot involved in assessing the patient, bringing them from the referrer through the MDT making sure the disease is operable and communication with the patients. On top of that, patients have pancreas failure and they also have bilirubin malabsorption, so these patients don't absorb their fats, proteins and vitamins and consequently they're therefore malnourished and going forward for a very big operation in a state quickly is a potential recipe for disaster, so we need additional resource to do this safely, effectively and well.' (Interviewee 10)

The appointment of a fast-track nurse to help oversee the pathway has not been straightforward and the Unit has had to work hard to find the necessary funds to support this role. In spite of such difficulties, it was recognised that the Unit at UHB has an advantage over other units that might

want to replicate the pathway as the volume of work they undertake means that top slicing money from an enhanced tariff (if agreed), makes the appointment of such an individual feasible.

'It gives us the volume so if you can argue an extra £1,500 on your tariff and you do 100, that easily pays for your fast track nurse but if you're only doing fifteen then it's not going to pay for your nurse at all ... clearly there's challenges rolling this out...' (Interviewee 10)

Organisational impact - UHB

Interviewees noted that the fast-track service was operating effectively and that appropriate patients were being identified and slotted on to theatre lists, as intended and that this fast response was preventing unnecessary procedures. Interviewees' understanding of how the pathway works is that there is minimum impact on organisational capacity and that in reality the same number of patients are being seen and treated but just within different timescales. The holding of theatre slots for fast-track patients means that when one is not listed for surgery, the slot can be filled with another patient, so it is not wasted.

'... if you look at it over a six month period and a one year period, these cancer patients, the pancreatic cancer patients who are coming in as fast track would have to come onto these lists at some point, so instead of that they are coming in a bit earlier, that's all... from what I've seen we are leaving a slot for a potential fast track on our theatre diary So if fast track doesn't come to fit into that slot, the slot would be used for somebody else for a liver resection for example.' (Interviewee 1)

The availability of ward-based and ITU beds post-operatively for fast-track patients is also not an issue as far as interviewees are concerned. The use of an ITU bed by a fast-track patient was no different to the use of an ITU bed for a non-fast-track patient, or any other patient who would take a theatre slot that had been held for a potential fast-track patient.

'I mean these are patients that we would see anyway so they are in our base line from an activity perspective it's just bringing forward the manner that we're treating them in so from an ITU point of view and from a Ward bed prospective we don't feel that we need to put additional capacity in there...' (Interviewee 6)

However, the ability to ring fence ITU beds specifically for fast-track patients was raised as a potentially useful approach if the need to accommodate other activity began to have a significant impact on ITU's ability to make beds available.

'... you'd have a jaundiced patient who's bilirubin is 300 and has come for surgery today... if you have to wait for another one week... because there is no ICU bed ... then that would have an impact, that could have an impact on the patient because they are jaundiced and they could develop infection from that or renal failure from that...it would be good ... to recognise that these patients are coming through the system and they would have some priority

... somewhere for their post-operative ITU beds so that we don't have to cancel them.'

(Interviewee 1)

It was noted however that if activity begins to rise significantly as a result of increasing incidence of pancreatic cancer, then additional resources would need to be considered.

'... so where there's a step change of 5% or 10% year on year that would require an additional 5% or 10% HDU beds and Ward beds and Ward nursing and anaesthetic time and all of those things but the programme per say doesn't require more ITU capacity compared to a standard Whipple for example.' (Interviewee 6)

Organisational impact - referring units

While clinical colleagues within referring units, that were interviewed, share UHB clinicians' enthusiasm for the pathway; *'But this is perhaps the only unit in the country that's started this initiative, so I think it's fantastic.'* (Interviewee 5); the need to increase awareness of the service and to reinforce its particulars among referring units was mentioned a number of times by interviewees.

'... we've all seen it and it's been cascaded down MDTs. It's just I think it would be nice to have it completely reinforced, saying that, you know, we do have a pathway like this and, you know, you can use that.' (Interviewee 5)

Members of UHB's clinical team have attended other unit's MDTs over the time that the fast-track has been in place to talk to colleagues about the pathway. At the time of interview, this round of visits was still underway but it was also recognised that take-up even in those units that had been visited wasn't necessarily at an optimum level yet.

'... people are still being [stented] in some of the centres that know of the system. So the take-up isn't 100%.' (Interviewee 10)

It was also noted that other unit's understanding of the new pathway was not always accurate.

'I don't think that initially they've understood everything, insomuch as I had one of the girls from xxxx contact me a couple of weeks ago, asking, could this patient have a fast-track endoscopic ultrasound?' (Interviewee 4)

Pancreatic patients can enter the system via different routes and onto different pathways managed by clinicians who might not know that a fast track service exists. In particular, engagement with gastroenterologists was seen as key.

'You can sort of enter the pancreatic world via lots of different routes and those entry routes are different and manned by people who are not as skilled and also probably don't even know that (the) fast service exists. ...So upper GI surgeons ... know about it but this can actually happen on a geriatric ward. They can come in under medicine...' (Interviewee 3)

'I think it's the awareness, the gastroenterologists at other units who would do the ERCPs and stent are the people who should be in a position to refer these patients or don't do the procedure when there is a patient suitable for the fast track.' (Interviewee 1)

Though there are long-standing relationships between UHB and its referring units, the development of more open and trusting relationships was seen as critical to the success of the pathway. Interviewees from UHB commented that visiting other unit's MDT meetings had been particularly beneficial in establishing a greater sense of rapport and strengthening lines of communication. However, interviewees from referring units suggested that there was a need for a more systematic means of referral with a 'uniform access point' by which means referrals could be checked by the UHB team on a daily basis in order to speed up the process even further.

'So it needs some sort of central hub ... you know it's looked at every day, whether that's a CNS, whether that's a consultant. You wonder whether they need a kind of pancreatic tracker meeting every day, what new referrals have come in each day and then it's actioned.' (Interviewee 3)

'With fast-track patients, you know, a patient can pitch up any time and the UHB MDT discussion happens on a Thursday. ... So I think for the fast-track pathway it has to be a completely separate work stream. ... the problem now is it depends on individuals, so it depends on xxx and xxx to pick up their emails or phone calls. ...that's one way to do it – have a virtual MDT ... be in a position to advise the referring clinician within a 24-hour timeframe, rather than wait for the MDT.' (Interviewee 5)

Communication with the patient begins in the relevant referring unit, and interviewees commented on the need to ensure that this was managed well given the small window of opportunity the fast-track pathway would allow for giving patients all the information they needed. In particular, managing the nutrition of patients was seen as critical for local teams.

'We need to get the patients thinking about the diagnosis, thinking about the treatment and we need to get the local teams thinking about nutrition.' (Interviewee 10)

'We'd like to know that they'd been started on Creon, and we'd like to know perhaps what their clotting was, with the view of starting some oral vitamin K.' (Interviewee 4)

The research team was advised that the CNS or pathway co-ordinator would play an important role in managing the communication triangle between the patient, the referring unit and UHB and it was suggested that this approach would be viewed as less likely to cause any ruffled feathers among the referring unit's doctors.

'...I don't think there's the same kind of issues that secondary and tertiary care doctors may have in our white towers, I don't think the CNS team have that same kind of barrier.' (Interviewee 10)

As a practical step, the Unit was also planning to put UHB's patient leaflets and its fast-track pathway and protocol on the internet so it would be available for secondary care colleagues to print out and give to their patients.

It had been suggested to the research team before undertaking the project that one of the barriers to implementing this pathway might be the perception from referring units of UHB's ability to deliver the new pathway, as a result of historical issues regarding capacity and timeliness. This was explored with interviewees but was not felt to be an issue currently, though it was recognised by both referring units and UHB as a potential future risk.

'No they haven't raised any issues. I think they would be happy to let us make those decisions based on our service provision and our capacity, the available capacity from our end, if we say that we are able to provide it they would refer the patients is my understanding.' (Interviewee 1)

'I think the most obvious one is going to be it will be a victim of its own success. So I think as the pathway kind of speeds up and, you know, it's opened out and more people start referring patients in, it's going to be quite difficult to maintain that level of efficiency, I think, without further investment.' (Interviewee 5)

The reluctance of referring units to give up stenting these patients had been suggested as another potential barrier to the introduction of the pathway but this was not evident as an issue in interviews with clinicians from referring units, though the research team recognise the small numbers of clinicians involved. Acute-level activity is so relentless in general, that any time freed up by not undertaking stents is easily taken up by other activity and the loss of income from not stenting is not seen as problematic.

'...so the actual operable cancers that may need a stent insertion is going to be, again, quite a small fraction, so it doesn't really impact on the unit at all... the unit costs per procedure are not particularly high, and the numbers we're talking about are actually quite small.' (Interviewee 5)

Commissioning arrangements

The commissioning arrangements for the fast-track pathway were unresolved at the time of interview. There is a tariff for a Whipple procedure performed as an emergency and a separate tariff for performing an elective procedure; the UHB team has been trying to negotiate a mid-range or 'urgent' tariff for the fast-track pathway. This has been complicated by the separation between local commissioning of admission for jaundice and stenting and specialised commissioning of HPB surgery. In conversations with local commissioners in Birmingham, UHB has been asked to demonstrate that any savings realised as a consequence of the fast-track pathway would be realised by UHB. This has

been problematic as the savings that can be achieved by the fast-track service are realised mainly at the referring units, rather than UHB.

'The problem for the hospital is the saving is spread throughout the NHS so most ERCPs are happening in Walsall, Wolverhampton, Worcester, Heartlands. So although the NHS saves money overall, UHB doesn't realise that financial benefit.' (Interviewee 10)

It is also been reported that gaining access to local commissioners has been problematic. Over a long period of time, the UHB team has been subject to changes in information requirements from the CCG and changes to processes which have frustrated attempts to discuss commissioning arrangements for the fast-track pathway.

'...this is probably about the fourth or fifth different submission we've made to them in various guises since October last year so it's really disappointing in that sense...so it's just been a constant sort of pushing back of the timeline and changing the format of the information that they're requesting of us.' (Interviewee 6)

Impact on clinicians' working practices

Interviewees were asked how they had become aware of the fast-track pathway. It appears that this was mostly a process of gradual awareness rather than through any formal launch or introduction.

'From the MDT, from our MDT, I'm made aware that we are offering the service'
(Interviewee 1)

'It was very much 'oh, you know, they could be suitable for a fast-track' ...it became a common theme coming through the MDT....because we work very closely with the clinical nurse specialists so actually they were letting us know what was sort of going on as well.'
(Interviewee 9)

'I must confess I've never actually seen it (the pathway) written down,' (Interviewee 2)

The introduction of the pathway was deliberately downplayed initially in order to ensure the Unit could manage the referrals differently, without having raised the expectations of referring units.

'I think we talked about how we would phase things in ...You have to change the referring patterns of your referring clinicians, but you also, you can't flick that switch overnight...'
(Interviewee 8)

All of those interviewed spoke positively about their experience of being involved in doing something differently and working together as a team.

'... it's always heartening to see that people are thinking about the way that the processes work. It makes it a slightly more positive environment if you think OK, we're doing the very basic things differently. We've tried to think about these things and that's what I'm very happy about...' (Interviewee 2)

'I mean just a huge relief that we were making a change, and very supportive. So there hasn't been kind of cynicism about it at all, just genuine support.' (Interviewee 3)

A number of interviewees talked about the pathway being 'time neutral', with no impact on their day-to-day workload.

'This is a fait accompli change in practice which has negligible impact upon myself and so I've no complaints about that...they're all going to need the same sort of baseline imaging as they would have done no matter whether it was fast track or not.' (Interviewee 2)

'...from the oncology point of view I don't think it will change practice at all because traditionally we would see these patients anyway if they've had a Whipple's surgery or adjuvant chemotherapy.' (Interviewee 9)

In essence, there appears to have been very little requirement to change working practices among clinicians at UHB.

'There's not been an overt request to do anything differently so all of the patients who come with a cancer diagnosis we have to try and expedite their imaging anyway. So they fall within the same group. And similarly for me in the MDTs there's no difference because I'm looking at the cancer pictures and it doesn't matter when they were taken or what the interval is between that point in time and their subsequent surgery. There's no relevance to my interpretation really.' (Interviewee 2)

However, without the dedicated input from a fast-track nurse, or pathway co-ordinator to manage the referrals, there was a concern that the pathway might not be sustainable in the long-term.

'So if you try and do it without a fast track nurse it will just go back to the old ways because it is a bit of hard work, ... the referrers are referring you have to respond to that, you have to otherwise what's the point in it for them...' (Interviewee 10)

There has been some discussion among members of the team as to a patient's level of bilirubin and what would be considered acceptable for fast-track surgery. The team reported starting off quite conservatively and then beginning to accept patients with higher levels but the limits of what is possible in terms of referral criteria do not yet appear to have been determined.

'It was discussed and we as a group of anaesthetists were asked to sort of write down ...what we might think our upper limits of acceptability might be in terms of age and degree of

jaundice and co-morbidity, particularly to start off with. Because it was a bit of step into the unknown really. As I say, apart from a couple of patients that you might see a year with gastric outlet obstruction, we didn't know how jaundiced you could be really and we could get away with it and we still don't probably.' (Interviewee 8)

The experience and expertise of the team are undoubtedly an important factor in the Unit's ability to manage patients who are complex and very unwell, which means that the Unit may be able to accept more patients for fast-track surgery than less experienced units would be able to do.

'We're a very high volume and complex liver pancreas cancer centre ... And that experience means that we've got a lot of practical experience of looking after patients who have very high levels of bilirubin and jaundice and so we're also able to question whether there needs to be an arbitrary threshold and so increase the pool of potential patients who are suitable for this system ...' (Interviewee 10)

As might be expected from such a highly experienced Unit, the team has continued to review and reflect on its practice with the fast-track pathway which has been appreciated.

'We've had some issues with bleeding which we've reviewed which we think probably are technical rather than specific to this process, but the fact that they were flagged up early and we've met and we've reviewed them I think is professional and encouraging.' (Interviewee 8)

Fast-track patient impact – experience and clinical outcomes

The patient experience of the fast-track pathway was not assessed by interviewing patients directly, as this would have complicated obtaining ethical approval. Instead clinical perceptions of patient experience were used as a proxy for actual experiences. The research team recognise the limitations of this approach and strongly recommend that the clinical team undertake the formal collection of patient feedback on the fast-track service in order to ensure that it is not affecting patient experience prejudicially. It is not an unreasonable assumption that the speed of treatment is a priority for cancer patients and interviewees felt this would be the case in this context, given that such patients would be symptomatic.

'I think they would be happy enough to go for the operation as soon as possible with the cancer. ... I don't think anybody has said to me that it is too soon for them to decide ... these are the patients who are actually jaundiced and they know there is something wrong with them ... they are clinically affected by it and when you offer surgery they go for it.' (Interviewee 1)

'...if you deal with these patients on a day to day basis who are sick and distressed, speed doesn't obviously necessarily change the outcome but it changes patient experience by an inordinate degree because the families feel that everything was done and the best was done. ...pancreatic cancer is a very difficult illness, and maybe quick surgery may not improve cure

rates but for rapidly progressing disease, it's common sense to operate quickly. Secondly, it's got to be better for the patient experience.' (Interviewee 3)

The availability of someone cancer patients can share their fears and concerns with, outside of the patient's family or friendship circle, is important, and the Cancer Nurse Specialist is often the person to whom cancer patients turn. This need for information, reassurance and support is no different for fast-track patients except that the nature of the pathway does limit the time available for patients to discuss their situation with family, friends and carers and to put arrangements in place that might be important to them i.e. organising care for dependents, putting their affairs in order etc. Having such psychological, emotional and practical support readily available is therefore perhaps more of a priority for fast-track patients, particularly if they have not been given a diagnosis or an indication of it from their local clinicians.

'... they have to make a decision and go through the surgery within a short span of time, which is a major operation, would they have enough time to think about it, would they have enough time to ask questions to somebody, if some other family members ask them other questions, etc., if their operation is three weeks' down the line you could find a CNS on the phone a week down the line and ask some questions, but if it's all happening too quickly ...are they happy with this?' (Interviewee 1)

'So it's a little bit different 'cause some of our patients will come here not even thinking that there's a potential for cancer. They think they have gall stones. So to do a fast track on them could be, you know, mentally and emotionally quite challenging for them...' (Interviewee 4)

The team has recognised the critical importance of such a patient-focused role, hence the effort focused on identifying funding for a dedicated nurse specialist or pathway co-ordinator to provide this kind of support as well as acting as a contact and liaison point between referring units.

'... we understand very clearly it's important in both liaising with the referrers as well as being the touch point for patients and providing them with the support, the mental support and the support that their families require when they receive a very dramatic and unsettling diagnosis ... in a standard process they would have three weeks or so to come to terms with it and really we're looking at sort of halving that in this process.' (Interviewee 6)

'I do think that it's very important that they see a clinical nurse specialist at their first appointment, because I do think, with the speed that everything goes, it could potentially be a bit of a recipe for disaster if they didn't have the contact with somebody and a familiar face that they already know.' (Interviewee 4)

It was not the purpose of this study to analyse patient outcomes in order to determine the clinical effectiveness of the fast-track pathway but interviewees' perceptions were that the recovery times

for fast-track patients were not different to non-fast-track patients. Interviewees also suggested that the fast-track pathway would enable more successful resections.

'I don't think their post-operative recovery was particularly protracted because they were fast tracked, no, I think they will do slightly better if at all, but it's pretty much comparable...'
(Interviewee 1)

'So rather than patients going for a potential Whipple's and a resectable needing a bypass or being an open and closed operation, actually they'll be more successful operations.'
(Interviewee 9)

Additionally, the development of the fast-track pathway has led the Unit to think about the possibility of supporting this cohort of patients within a wider Enhanced Recovery programme that could be established within the organisation. The justification for the resources to deliver such a programme is difficult for small numbers of patients but combining resources with other specialities could make this a viable option. Such a programme would undoubtedly enhance the experience of fast-track patients.

Non-fast-track patient impact

Though the study has predominately explored the impact of the implementation of the pathway on organisations, clinicians and fast-track patients, consideration should also be given to the impact of the pathway on those patients who ultimately may not proceed to surgery. Interviewees raised some doubts about the process for 'handing back' a patient to the referring unit and the support that those patients would be provided with, if they were not determined as suitable for surgery.

'When you fast-track one bit of a service, if that patient is then not eligible for that, it doesn't feel very good to them to be almost abandoned... this guy is actually dying of cancer and it's not treatable and there was a kind of expectation that because he was going to be seen within two days and have an operation within five days, there was a very positive spin on his illness and then the fall is quite great isn't it?' (Interviewee 3)

Taking account of the needs of these patients may generally be perceived to be the remit of the referring unit but there is clearly a role for the dedicated fast-track nurse or pathway co-ordinator to liaise with colleagues in referring units to ensure that these patients are not left without practical, emotional or psychological support.

Discussion

It is apparent that in order for the pathway to work optimally, both the receiving unit and referral units must follow specific protocols. While the receiving unit at UHB appears to be following the protocols it has determined as being most appropriate and is indeed

continuing to refine patient pathways, to achieve maximum patient benefit, the ability to ensure that referring units follow a complementary protocol is limited. It is apparent from the numbers of patients referred through the fast-track pathway that more must be done to avoid biliary stenting in referring units. While UHB clinicians have undertaken activity to improve communication and relationships between colleagues in referring units, the patient pathway from presentation can take a number of different directions. There are therefore far more clinicians potentially involved in a patient's care, and that can have an influence on whether the patient has the opportunity to be eligible for fast-track surgery, than can easily be reached through the kind of briefings and meetings undertaken thus far with relevant MDTs.

Changing clinical practice where it is not mandated either clinically (through Clinical Guidelines) or financially (through tariff arrangements) is notoriously difficult and takes time. The levers available in this scenario to change behaviours are generally limited to goodwill, though a programme of awareness raising through conference presentations and journal articles is endeavouring to build some momentum through peer pressure. Given these difficulties, a programme of activity that attempts to cover as many bases as possible seems sensible.

There are a number of means by which more patients might be more readily routed through the fast-track pathway. The first and most immediate means would be to expand the number of clinicians who are aware of the existence of the pathway and eligibility criteria in each referring unit. Such an expansion might include gastroenterologists and non-medical endoscopists, endoscopy nurses and endoscopy clerical teams involved in booking patients onto endoscopy lists. Providing the relevant Clinical Lead at each referring unit is supportive of the fast-track pathway, it might be possible with their approval to ensure that whatever checklists or referral forms are completed for patients suspected of having pancreatic cancer include a prompt for staff to consider whether the patient might be suitable for fast-track surgery and to query at the earliest possible stage, the necessity of stenting.

Beyond the referring unit, it might be beneficial to consider a communication campaign with General Practitioners who would be referring patients to referring units. Even a limited knowledge of the existence of a fast-track pathway might enable a GP to include this on their referral form as a query to consider. Commissioners within Clinical Commissioning Groups (CCGs) may also be well positioned to promote the fast-track pathway to their constituent providers through self-interest, if nothing else, as pathway savings will accrue to referring units rather than the receiving unit at UHB.

An infrastructure exists nationally within which clinical developments in cancer services should be supported and championed. The Cancer Alliances were established in 2016 in order to bring together local senior clinical and managerial leaders representing the whole

cancer patient pathway across a specific geography. These Alliances are intended to lead the local delivery of the Independent Cancer Taskforce's ambitions for improving services, care and outcomes for people with cancer. It is possible therefore that the West Midlands Alliance may be able to support the fast-track pathway regionally and champion it nationally as best practice, through its links with other regional Alliances.

Academic Health Science Networks (AHSNs) are also part of the infrastructure intended to, 'speed up adoption of innovation into practice to improve clinical outcomes and patient experience' but their interpretation of and approach to this appears to vary significantly between AHSNs. A number of AHSNs have a specific programme of activity for cancer, including the AHSNs in Oxford, the East Midlands, South London, Imperial College Health Partners and UCL Partners. The West Midlands AHSN does not have such an expressed interest however.

A longer-term strategy for national uptake of the pathway would be to influence the development of clinical guidelines for the treatment of patients with pancreatic cancer. Regrettably the opportunity to respond to a consultation on the scope of new NICE guidance for the treatment of pancreatic cancer has passed (02 December 2015 - 13 January 2016) though the potential for fast-track surgery to be recognised as the standard for care of such patients appears to be within the scope of the guidance. There is therefore an opportunity to respond to the consultation on the draft guidance which has subsequently been produced. The author understands that this is due to be issued by NICE in July 2017. It might be possible to submit a substantial response to this consultation which includes not only the results from UHB's evaluation of the fast-track pathway but testimonials of support from organisations such as Pancreatic Cancer UK and the All Party Parliamentary Group on pancreatic cancer.

Another longer-term national strategy might be to influence clinical practice within the gastroenterology community through such organisations as the British Society of Gastroenterology (BSG) and the Joint Advisory Group on GI Endoscopy (JAG). The BSG is accredited by NICE to produce best practice clinical guidelines. Accreditation is valid for five years from July 2013. According to the BSG advice on the production of guidelines, *'Guidelines are usually commissioned because of a perceived need for greater clarity and consensus in the recommended management of a given condition. This need usually arises when there have been important recent advances in understanding and treatment, which should lead to improved patient outcomes, but have not been universally incorporated into clinical practice.'*

The JAG's accreditation standards for endoscopy services encompasses a domain on 'Clinical Quality', one component of which is Appropriateness – CQ5 – 'The endoscopy service shall ensure that it implements and monitors systems for all referrals and procedures to be

appropriate and safe.’ It might be worthwhile to discuss with the JAG whether stenting for pancreatic cancer patients where a fast-track surgical pathway exists would be considered as inappropriate, and could therefore be captured within such standards, as a means by which to change behaviour.

There is no one solution to achieve greater adherence to the existing fast-track pathway. Instead a combination of approaches is likely to work well by galvanising a ‘push and pull’ effect to increased adherence and take up of the fast-track pathway.

Conclusion

It has been both a pleasure and a privilege to have been involved in this evaluation, working alongside such dedicated and passionate clinicians and managers. Their efforts to improve the treatment and outcomes for patients with pancreatic cancer are inspiring. However, the speed with which new ideas and innovations are taken up within the NHS is disappointingly slow and take-up is frustrated by a range of barriers. Communication is the key to change but undertaking the scope and scale of communication necessary to effect sustainable change in clinical practice is generally beyond the ability of practising clinicians, faced with increasing work pressures and clinical commitments.

The infrastructure and levers to support a change in clinical practice in this way are unclear. There is no straightforward route by which such a change can be promoted, developed and spread. The Cancer Alliances, the most recent incarnation of the means by which cancer services are considered systematically across a region have only recently been established and their approach to and support for service developments is yet to be experienced. AHSNs meanwhile operate within a broad, yet rather opaque remit, the focus of which differs depending on the priorities for each organisation. Therefore the ability of an individual AHSN to respond to a request for assistance with this kind of service transformation is unknown. Navigating and negotiating any assistance from such bodies is also likely to be beyond the ability of practising clinicians.

It is not clear to the author to what extent clinical evidence is required in order to achieve service transformation of this kind nationally for pancreatic cancer. If a prerequisite for the spread of such a fast-track pathway is a higher burden of proof of its effectiveness, then further research is required. However, here too lies frustration for enthusiastic clinicians with bold ideas for innovative practice or service development, as there is a lack of appropriate funding opportunities that are researcher or clinician-led. In any case, research and innovation funding within the UK preferences particular approaches and methodologies that may not always be suitable for delivering the sort of service change and patient benefit that can be achieved by this new pathway. Spending on research for pancreatic cancer is

woefully small in comparison to research spending for other cancers and yet, the effect of the disease on patients and their loved ones is catastrophic, with pancreatic cancer having the highest mortality rate of all cancers. This is certainly one area where political influence could be hugely beneficial.

To conclude, the fast-track pathway has been welcomed by a range of clinicians, including surgeons, gastroenterologists and radiologists, from both the referring units and receiving unit at UHB. Its benefits are clearly apparent to the patient and the organisation and its introduction, though facilitated by a number of infrastructural and management changes, has not impacted negatively on individual clinical practice. It should be possible to expand the pathway locally and to spread the pathway nationally, providing the knowledge of its existence is widened and practical issues are addressed.

For further information regarding the evaluation please contact –

Hilary Brown - Senior Fellow and Director of Policy, HSMC

h.i.brown@bham.ac.uk

References

APPG on Pancreatic Cancer (2013) *Time to change the story: A plan of action for pancreatic cancer - the report of the parliamentary enquiry into pancreatic cancer*. London: APPG

Fang Y, Gurusamy KS, Wang Q, Davidson BR, Lin H, Xie X et al. (2013) Meta-analysis of randomized clinical trials on safety and efficacy of biliary drainage before surgery for obstructive jaundice. *Br J Surg* 2013; 100(12):1589-1596.

King's Fund (2016) *Quarterly Monitoring Report 20*. London: King's Fund
<http://qmr.kingsfund.org.uk/2016/20/> (accessed 12th October 2016)

NHS England (2013) *NHS Standard Contract For Hepatobiliary And Pancreas (Adult)*. London: NHS England