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- Benefits of earlier diagnosis for patients with pancreatic cancer
- Using jaundice as a marker of potential pancreatic cancer to speed up diagnosis

A rapid-access diagnostic pathway in suspected pancreatic cancer

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Key points

Surgery remains the only curative treatment option for pancreatic cancer

Pancreatic cancer is often diagnosed at an advanced stage when surgery is no longer an option

An earlier diagnosis would allow more patients with pancreatic cancer to undergo surgery

Jaundice is a marker of possible malignancy of hepato-pancreato-biliary origin

A diagnostic pathway focusing on jaundice can increase the number of patients eligible for surgery

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Abstract Surgery remains the only curative treatment option for pancreatic cancer, but by the time of diagnosis many patients are no longer eligible for surgery. An earlier diagnosis would allow more patients to undergo potentially curative surgery. A clinical nurse specialist working in the gastroenterology department of the Royal Albert Edward Infirmary in Wigan has designed and implemented a rapid diagnostic pathway using jaundice as a marker of potential pancreatic cancer. This rapid-access jaundice pathway has been operational since March 2017 and the number of patients referred for surgery has increased.

Citation Stevenson-Hornby V (2018) A rapid-access diagnostic pathway in suspected pancreatic cancer. *Nursing Times* [online]; 114: 12, 34-35.

Every day in the UK, 27 people are diagnosed with pancreatic cancer and 24 people die from it ([Bit.ly/PancreaticCancerStats](https://bit.ly/PancreaticCancerStats)).

Almost 50% of all patients with pancreatic cancer receive their diagnosis after having attended the emergency department (Public Health England, 2017). Once they are diagnosed, 90% of patients already have advanced disease and surgery is no longer an option (Public Health England, 2018).

In patients found to be inoperable at diagnosis, the mean survival rate is four to six months ([Bit.ly/PancreaticCancerTrends](https://bit.ly/PancreaticCancerTrends)). Five-year survival is less than 7% and the figure has not improved significantly in almost 40 years ([Bit.ly/PancreaticCancerStats](https://bit.ly/PancreaticCancerStats)). Surgery remains the only curative treatment option and is viewed as the best possibility of improving long-term survival. An earlier diagnosis would allow more patients to undergo potentially curative surgery.

As a clinical nurse specialist (CNS) in hepato-biliary-pancreatic (HBP) cancers in the gastroenterology department of the

Royal Albert Edward Infirmary in Wigan, I wanted to develop a service that would help diagnose pancreatic cancer as early as possible. I designed and implemented a rapid-access jaundice pathway that has been operational since March 2017.

Aims

The overarching aim was to diagnose patients with pancreatic cancer earlier and therefore increase the number who are eligible for surgery. The pathway serves different purposes for different patient groups:

- For those eligible for surgery, the aim is to ensure that assessment and diagnostics happen within 48 hours of presentation, expediting referral to the fast-track surgical pathway at the tertiary centre at Manchester Royal Infirmary;
- For those ineligible for surgery, the aim is to minimise referral delays so that they are seen more promptly in oncology for consideration of palliative chemotherapy;
- For those who are already diagnosed and are receiving palliative

chemotherapy, the aim is to minimise treatment delays caused by jaundice, thereby improving prognosis and helping to maintain hope (this will help patients, for example, live long enough to attend a family event or see the birth of a child or grandchild).

Design

When designing the pathway, I explored different models, including a weekly clinic day. I opted for a rapid-access model, which is more flexible and reactive: for someone who is already jaundiced, assessment and imaging need to be performed without delay, which a weekly clinic does not always allow.

The pathway focuses on patients presenting with jaundice. Approximately half of all patients who receive a diagnosis of pancreatic cancer are found to have a tumour in the head of the pancreas (Huggett and Pereira, 2011). Because the tumour obstructs the flow of bile, many patients develop sudden-onset, painless jaundice, so anyone presenting with jaundice of this type needs urgent assessment and imaging to rule out malignancy.

Jaundice is seen not only in pancreatic cancer but also in other malignancies of HBP origin, so the pathway has led to the earlier diagnosis of hepato-biliary malignancies as well as pancreatic cancer.

How does it work?

Patients presenting with sudden-onset, painless jaundice are referred by their GP to gastroenterology for suspected cancer. When the referral is received, the case is triaged by a consultant gastroenterologist and, if appropriate, passed on to the HPB nursing team, who trigger the rapid-access jaundice pathway.

The HPB CNS conducts an initial telephone consultation with the patient, during which a detailed history is taken, before giving the patient an appointment in the ambulatory assessment area for full assessment, repeat blood tests and imaging (usually in the form of a computed tomography scan). The appointment may be the same day or the next day (excluding weekends). Assessment, blood tests, imaging, nurse-led review and discussion with the specialist surgical team at the tertiary centre are completed on the same day.

Throughout the process, patients receive holistic support from the HBP CNS, who acts as a key worker, not only in terms of managing patients' physical symptoms but also helping them psychologically, as this is likely to be a difficult time for them.

Challenges

With regard to succession planning, the aim was to minimise any disruption to service provision and add as little as possible to staff workloads. I discussed the pathway with all colleagues who would need to be involved, including GPs, radiologists, gastroenterologists, surgeons, nursing staff, and staff at the tertiary centre. The pathway was discussed locally with the multidisciplinary team and underwent two trial periods, first for six weeks and then for six months. After each trial period, it was found to lead to clear improvements.

Challenges included managing my workload as the only HPB CNS while designing and implementing the pathway; making changes to the existing referral process; convincing radiology colleagues to provide same day-imaging; and generally persuading people to change existing practice. Once the pathway was in place, a major challenge was to communicate the new referral process to all concerned. Most challenges were overcome through excellent multidisciplinary teamwork.

Taking part in the trust's quality improvement programme was of great help: it allowed me to learn from colleagues with vast experience in quality improvement and to raise awareness of the pathway at board and chief executive level.

*“A truly nurse-led innovation that has produced demonstrable improvements in a patient group associated with poor outcomes”
(Judges' feedback)*

Outcomes

Since the rapid-access jaundice pathway was implemented, twice as many patients diagnosed with HPB malignancy at the Royal Albert Edward Infirmary have been eligible for surgery than before.

In the 12 months since March 2017, when the pathway was first trialled, 51 patients were referred to us, of which 31 were diagnosed with a malignancy (giving a 'cancer pick-up' rate of 61%). Out of those 31 patients, 28 were found to have a malignancy of HPB origin (55% of all referrals). Eleven patients among the 28 diagnosed with HPB malignancy (40%) were referred to the tertiary centre for surgery. For comparison, in the 12 months before implementation of the pathway, only 19% of

Box 1. Advice for setting up similar project

- Consult with all colleagues who will be involved in the project
- Start with one aspect – for example, jaundice as a possible symptom of pancreatic cancer – and capture data prospectively; you can then modify the pathway as needed
- Regularly update all members of the multidisciplinary team to engage them and obtain their feedback, which you can use to refine the pathway

patients diagnosed with HPB malignancy had been referred for surgery.

Of the 28 patients with a malignancy of HPB origin, 15 were confirmed as having pancreatic cancer. Of the 11 patients who went on to have surgery, seven had pancreatic cancer.

Future plans

We are now collecting data prospectively so that we can monitor outcomes and evaluate the pathway. We are planning to capture feedback from service users and stakeholders, which will help us refine the pathway. A second HBP CNS has been recruited and the pathway should work more smoothly as a result.

The pathway has been shared with other trusts in the Greater Manchester area and there are plans to share it nationally. There are also plans to extend it across the trust so it captures not only patients referred to gastroenterology with suspected cancer, but also those attending emergency care and inpatients in medical assessment and surgical assessment units. This would allow us to achieve earlier diagnosis in a larger number of patients while reducing the need for interventions, such as biliary stenting, which can delay surgery. **NT**

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References

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