Scottish
Cancer Network

NHS
SCOTLAND

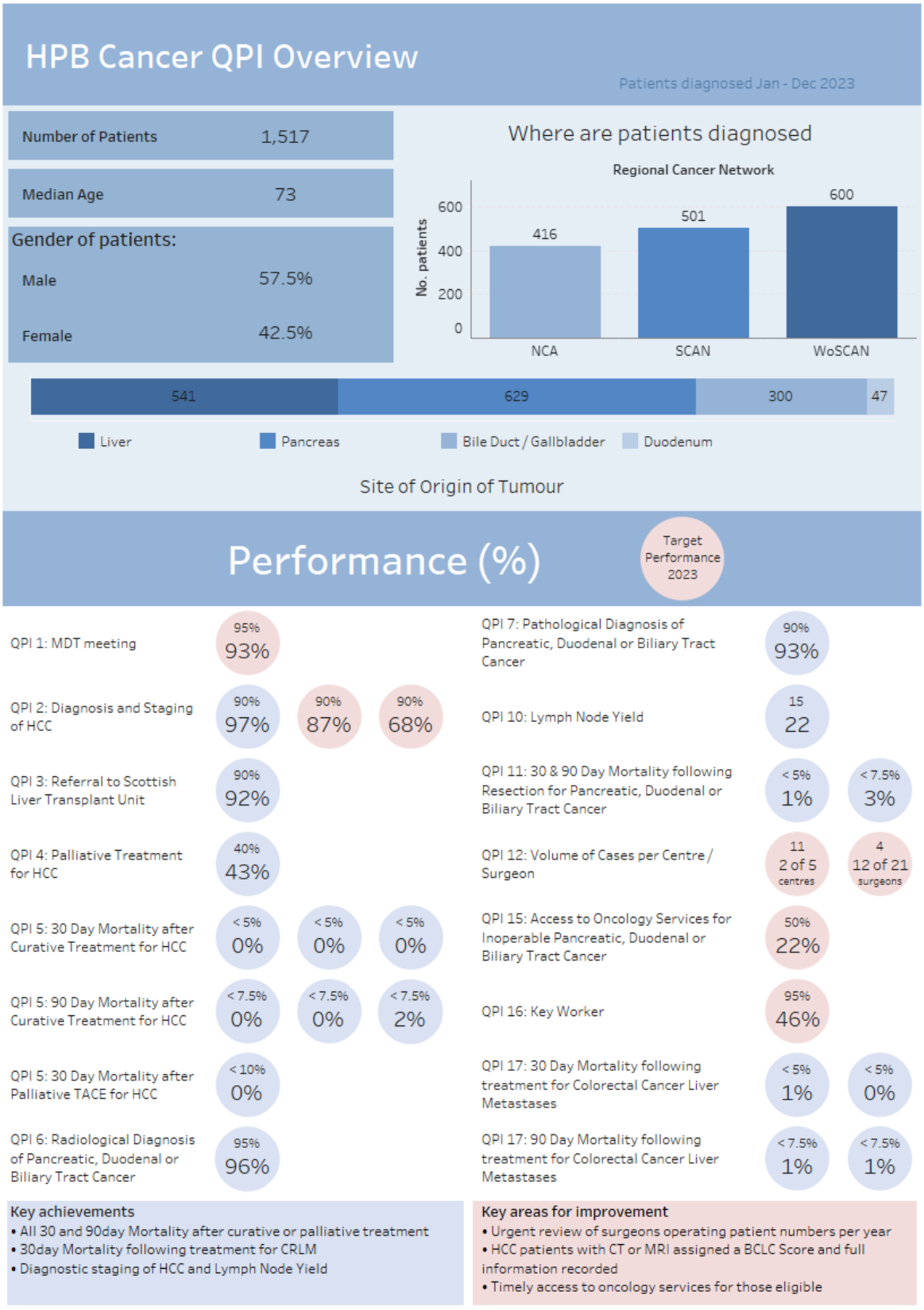
HepatoPancreatoBiliary Cancer Clinical Audit Report

Quality Performance Indicators
01 January – 31 December 2023

Contents

HPB Cancer QPI Overview

Patients diagnosed Jan – Dec 2023



Executive Summary

Introduction

This report contains a performance assessment of HepatoPancreatoBiliary (HPB) Cancer Services relating to patients diagnosed across Scotland during 2023. To ensure the Cancer Quality Performance Indicators (QPIs) success in driving quality improvement in cancer care, QPIs continue to be assessed for clinical effectiveness and relevance. Formal reviews of HPB cancer QPIs took place in 2017 and 2020. These clinically led reviews aim to identify potential refinements to the current QPIs and involve key clinicians from each of the Regional Cancer Networks.

Methodology

A glossary of abbreviations used within this document are listed in Appendix 1 and further detail on audit and analysis methodology and data quality is available in the meta data within Appendix 2.

Results

A summary of the HPB cancer QPI performance for 2023 audit period is presented with more detailed analysis of results set out in the main report. Data are analysed by location of diagnosis or treatment and illustrate NHS Board or treatment centre performance against each target and overall national performance for each QPI.

Comparison of data across Scotland and Regions are impacted this year. NHS Lanarkshire was offered the opportunity to provide a formal statement regarding missing data for this publication. NHS Lanarkshire Executive Medical Director, Director of Quality and Lead Cancer Clinician issued the following formal statement:

This years' audit report excludes data for NHS Lanarkshire. Due to the financial situation, recruitment to a vacancy in the Cancer Audit Team was paused to allow time to assess and plan for recovery. This resulted in the post being unfilled for several months which impacted the ability to perform to timescales. The remaining staff have been working to full capacity but are unable to consume the workload and meet the expected timescales. The situation will be resolved in August allowing recruitment to the cancer audit post and restoration of the current deficit. We apologise for the delay in data and will regain normal timescales as soon as possible.

Some QPIs present continued challenges; QPI 12 surgical and centre volume is notably low; surgeons need to operate on a minimum of four patients per year. There are regions who are failing to meet this target and urgent review is required.

Access to oncological services requires improvement and data interrogated to understand reasons for delays and lack of key worker support. While this may partly be due to recording it is worth noting the need to audit the number of HPB specialist nurses in post in each area and how their jobs answer this need for support.

National HPB Cancer Performance Summary Report

Clinical Leads:	Mr Euan Dickson
Date:	01-Nov-24
Audit Reporting Period:	01/01/2023 – 31/12/2023

Colour Key	
	Above QPI target
	Below QPI target
-	No patients in QPI /comparable measure from previous year
†	Analysed by treatment centre (surgery or oncology)

No. Patients	NCA	SCAN	WoSCAN	Scotland
Liver cancer	125	189	227	541
Pancreas cancer	186	212	231	629
Bile duct/gallbladder	93	82	125	300
Duodenal cancer	12	18	17	47
Total	416	501	600	1517

QPI	QPI target	Year	NCA	SCAN	WoSCAN	Scotland
QPI 1: Proportion of patients with HPB cancer who are discussed at MDT meeting before definitive treatment.	95%	2023	95.8% (385/402)	95.9% (469/489)	87.7% (513/585)	92.6% (1367/1476)
		2022	96.1%	93.5%	92.7%	93.8%
		2021	96.0%	90.5%	90.6%	91.8%
QPI 2(i) Proportion of patients with HCC who have undergone computerised tomography (CT) or Magnetic Resonance Imaging (MRI).	90%	2023	95.2% (80/84)	98.4% (123/125)	97.8% (175/179)	97.4% (378/388)
		2022	97.1%	96.5%	99.5%	98.2%
		2021	100.0%	96.6%	98.8%	98.3%
QPI 2 (ii) Proportion of patients with HCC who have undergone computerised tomography (CT) or Magnetic Resonance Imaging (MRI) with full information recorded.	90%	2023	88.3% (68/77)	76.0% (95/125)	93.3% (166/178)	86.6% (329/380)
		2022	94.1%	63.5%	87.9%	81.7%
		2021	92.0%	54.2%	83.4%	75.7%
QPI 2 (iii) Proportion of patients with HCC who have undergone computerised tomography (CT) or Magnetic Resonance Imaging (MRI) who are assigned a BCLC Score.	90%	2023	72.7% (56/77)	37.6% (47/125)	88.2% (157/178)	68.4% (260/380)
		2022	97.1%	41.7%	87.4%	75.4%
		2021	86.7%	30.5%	80.5%	65.5%
*QPI 3: Proportion of patients with HCC who meet the current UK listing criteria for orthotopic liver transplantation referred to the SLTU for consideration of liver transplantation.	90%	2023	80.0% (8/10)	97.7% (43/44)	90.3% (56/62)	92.2% (107/116)
		2022	60.0%	100.0%	85.5%	89.4%
		2021	100.0%	95.7%	93.4%	94.9%
*QPI 4: Proportion of patients with HCC not suitable for treatment with curative intent that undergo specific treatment with palliative intent (TACE, SACT or radiotherapy).	40%	2023	42.6% (26/61)	42.2% (35/83)	43.7% (52/119)	43.0% (113/263)
		2022	40.4%	37.0%	50.8%	44.4%
		2021	43.9%	28.9%	40.5%	37.3%
*†QPI 5a: Proportion of patients with HCC undergoing disease specific treatment who die within 30 days of liver transplant.	< 5%	2023	- (0/0)	0.0% (0/10)	- (0/0)	0.0% (0/10)
		2022	-	0.0%	-	0.0%
		2021	-	0.0%	-	0.0%
*†QPI 5a: Proportion of patients with HCC undergoing disease specific treatment who die within 90 days of liver transplant.	< 7.5%	2023	- (0/0)	0.0% (0/10)	- (0/0)	0.0% (0/10)
		2022	-	0.0%	-	0.0%
		2021	-	0.0%	-	0.0%
*†QPI 5b: Proportion of patients with HCC undergoing disease specific treatment who die within 30 days of resection.	< 5%	2023	- (0/0)	0.0% (0/10)	- (0/0)	0.0% (0/10)
		2022	0.0%	0.0%	-	0.0%
		2021	0.0%	0.0%	-	0.0%
*†QPI 5b: Proportion of patients with HCC undergoing disease specific treatment who die within 90 days of resection.	< 7.5%	2023	- (0/0)	0.0% (0/10)	- (0/0)	0.0% (0/10)
		2022	0.0%	0.0%	-	0.0%
		2021	0.0%	0.0%	-	0.0%
*†QPI 5c: Proportion of patients with HCC undergoing disease specific treatment who die within 30 days of ablation.	< 5%	2023	0.0% (0/1)	0.0% (0/27)	0.0% (0/33)	0.0% (0/61)
		2022	0.0%	0.0%	0.0%	0.0%
		2021	0.0%	0.0%	0.0%	0.0%
*†QPI 5c: Proportion of patients with HCC undergoing disease specific treatment who die within 90 days of definitive treatment ablation.	< 7.5%	2023	0.0% (0/1)	3.7% (1/27)	0.0% (0/31)	1.7% (1/59)
		2022	0.0%	0.0%	0.0%	0.0%
		2021	0.0%	0.0%	0.0%	0.0%
*†QPI 5d: Proportion of patients with HCC undergoing disease specific treatment who die within 30 days of TACE.	< 10%	2023	0.0% (0/19)	0.0% (0/51)	0.0% (0/18)	0.0% (0/88)
		2022	0.0%	0.0%	0.0%	0.0%
		2021	0.0%	0.0%	3.8%	1.4%

QPI	QPI target	Year	NCA	SCAN	WoSCAN	Scotland
QPI 6: Proportion of patients with pancreatic, duodenal or biliary tract cancer who undergo CT of the abdomen prior to first treatment.	95%	2023	97.6% (283/290)	95.2% (297/312)	95.7% (357/373)	96.1% (937/975)
		2022	97.3%	94.4%	98.2%	96.9%
		2021	98.4%	93.4%	98.0%	96.7%
*QPI 7: Proportion of patients with pancreatic, duodenal or biliary tract cancers undergoing non-surgical treatment who have a cytological or histological diagnosis.	90%	2023	89.2% (33/37)	95.1% (39/41)	93.3% (56/60)	92.8% (128/138)
		2022	90.7%	94.0%	87.7%	90.4%
		2021	78.4%	89.7%	91.3%	87.1%
*†QPI 10: Average number of lymph nodes resected and pathologically examined per patient with pancreatic, duodenal or distal biliary tract cancer who undergo pancreatoduodenectomy performed by a specialist centre over a 1 year period.	Average of 15 nodes per patient	2023	23.8 (285/12)	20.8 (666/32)	21.8 (414/19)	21.7 (1365/63)
		2022	20.0	20.5	24.8	21.9
		2021	19.1	22.4	24.0	22.3
*†QPI 11(i): 30-day mortality after surgical resection for pancreatic, duodenal or distal biliary tract cancer.	< 5%	2023	0.0% (0/12)	2.6% (1/38)	0.0% (0/23)	1.4% (1/73)
		2022	4.5%	0.0%	0.0%	1.4%
		2021	0.0%	0.0%	0.0%	0.0%
*†QPI 11(i): 90-day mortality after surgical resection for pancreatic, duodenal or distal biliary tract cancer.	< 7.5%	2023	8.3% (1/12)	2.7% (1/37)	0.0% (0/23)	2.8% (2/72)
		2022	4.5%	0.0%	0.0%	1.4%
		2021	5.9%	2.5%	3.4%	3.5%
*†QPI 12a: Number of surgical resections for pancreatic, duodenal or distal biliary tract cancer performed by a specialist centre over a 1 year period.	11 per centre per year	2023	3 not met	38	23	2 met 3 not met
		2022	3 not met	27	24	2 met 3 not met
		2021	3 not met	43	33	2 met 3 not met
*†QPI 12b: Number of surgical resections for pancreatic, duodenal or distal biliary tract cancer performed by each surgeon over a 1 year period.	4 per surgeon per year	2023	3 met 4 not met	6 met 3 not met	3 met 2 not met	12 met 9 not met
		2022	5 met 3 not met	4 met 6 not met	5 met	14 met 9 not met
		2021	3 met 5 not met	6 met 4 not met	5 met	14 met 9 not met
QPI 15: Proportion of patients with pancreatic, duodenal or biliary tract cancer not undergoing surgery who are seen by an oncologist (or offered an oncology clinic appointment) within 6 weeks of initial diagnostic CT scan.	50%	2023	14.7% (30/204)	37.3% (81/217)	13.9% (37/267)	21.5% (148/688)
		2022	16.7%	36.4%	14.4%	20.8%
		2021	24.5%	30.7%	12.9%	20.9%
QPI 16: Proportion of patients with HCC who have an identified key worker at the time of referral to the MDT.	95%	2023	96.4% (81/84)	42.4% (53/125)	25.0% (45/180)	46.0% (179/389)
		2022	92.9%	33.0%	33.2%	44.0%
		2021	90.7%	38.1%	40.2%	50.0%
*†QPI 17a: Proportion of patients with CRLM undergoing curative treatment (resection) who die within 30 days of treatment	< 5%	2023	0.0% (0/31)	0.0% (0/49)	3.6% (1/28)	0.9% (1/108)
		2022	0.0%	0.0%	0.0%	0.0%
		2021	0.0%	1.8%	0.0%	1.1%
*†QPI 17b: Proportion of patients with CRLM undergoing curative treatment (resection) who die within 90 days of treatment	< 7.5%	2023	0.0% (0/31)	0.0% (0/49)	3.6% (1/28)	0.9% (1/108)
		2022	0.0%	0.0%	0.0%	0.0%
		2021	3.8%	1.8%	0.0%	2.3%
*†QPI 17a: Proportion of patients with CRLM undergoing curative treatment (ablation) who die within 30 days of treatment	< 5%	2023	0.0% (0/5)	0.0% (0/32)	0.0% (0/37)	0.0% (0/74)
		2022	0.0%	0.0%	0.0%	0.0%
		2021	0.0%	0.0%	0.0%	0.0%
*†QPI 17b: Proportion of patients with CRLM undergoing curative treatment (ablation) who die within 90 days of treatment	< 7.5%	2023	0.0% (0/5)	0.0% (0/32)	2.7% (1/37)	1.4% (1/74)
		2022	0.0%	0.0%	4.8%	2.4%
		2021	14.3%	0.0%	0.0%	3.3%

**Small numbers in some Boards/Regions - percentage comparisons over a single year should be viewed with caution.*

† QPIs reported by Board of surgery / Non-surgical treatment

Conclusions

Cancer audit data underpins much of the development and service improvement work of the National Managed Clinical Network (NMCN) and regular reporting of activity and performance is a fundamental requirement of a Managed Clinical Network (MCN) to assure the quality of care delivered. The Scottish HepatoPancreatoBiliary Cancer NMCN (SHPBN) remains committed to improve the quality and completeness of clinical audit data to ensure continued robust performance assessment and the identification of areas for service improvement.

We continue to reach the targets for many of the QPIs each year, which is testament to all the teams hard work in developing a consistent service for our patients across the country despite the challenges faced. Targets for both 30-day and 90-day mortality rates for patients with Hepatocellular Carcinoma (HCC), pancreatic, duodenal or distal biliary tract cancer and Colorectal Liver Metastases (CRLM) have been consistently achieved nationally and regionally. Specifically, 30-day and 90-day mortality rates for HCC patients undergoing disease specific treatment, whether liver transplant, resection or trans-arterial chemoembolisation (TACE) has remained at zero across all regions, with one 90-day mortality following ablation. National and regional targets have also been reached for 30-day mortality for pancreatic, duodenal or distal biliary tract cancer surgical resection, though one region failed the 90-day mortality target due to particular pathological disease. One patient who received resection for CLRM died within 30-days, though the target was still achieved. Palliative interventions for patients with Hepatocellular Carcinoma (HCC) who are not eligible for curative treatment have consistently achieved the target for the last 3 years, with one death within 90-days following ablation. The percentage of patients discussed in Multi-Disciplinary Team (MDT) meetings has remained consistent just missing the target as two regions have continued to improve though one has declined in performance.

It is recognised that some QPIs present continued challenges:

QPI 1: The patients not meeting this QPI were frequently requiring urgent treatment or were for best supportive care (BSC). Boards should note that all patients should be referred to the Regional HPB MDT for audit and registration purposes

QPI 12: surgeon and centre volume is low, a number of surgeons across all regions are operating on less than four patients per year. Urgent review required and action plan from owning health boards.

QPI 15 (access to oncological services) fails across the board badly. An action plan should be put in place to interrogate the data to understand reasons for delays.

QPI 16 — while some of this may be due to recording, an action plan is required to audit how many HPB specialist nurses are in post in each area and how their jobs answer this need for key worker support in SCAN and WOSCAN

QPI 2(ii) (recording full information for Computerised Tomography (CT) or Magnetic Resonance Imaging (MRI)), 2(iii) (recording of BLCL score).

The QPI results have highlighted recording issues for patient registration at MDT meeting, CT, MRI and particularly BLCL, minimum operating standards not being reached by 38% of surgeons, a lack of key worker resource across all regions, acutely in some NHS Boards, and oncological referral delays for some NHS Boards, in addition to limitations of the pathway. These issues have been discussed within each region and over the next few years it is hoped that there will be improvements in these areas. Additionally, full information recorded for CT or MRI, and assignment of a BCLC score, is continuing to improve, despite not yet reaching the target. Lessons from the Scottish Government funded pathway improvement project will be incorporated into new pathway guidance which will be developed for HPB cancer patient care.

The Network continues to work collaboratively with a multidisciplinary approach to meet the QPI targets and provide the highest quality of care to all HPB cancer patients across Scotland.

NHS Boards are asked to develop local Action/Improvement Plans in response to the findings presented in the report. Historically, completed Action Plans would be returned to the Regional Cancer Networks within two months of publication of this report. Please note actions have been categorised into groupings (for example surgery, oncology, pathology or data capture) for internal management purposes to allow regional trends to be identified and coordination of regional actions across multiple tumour groups where appropriate. Progress against these plans will be monitored and any service or clinical issue considered to have not been adequately addressed will be escalated in line with governance processes as set out in CEL 06 (2012).

Introduction

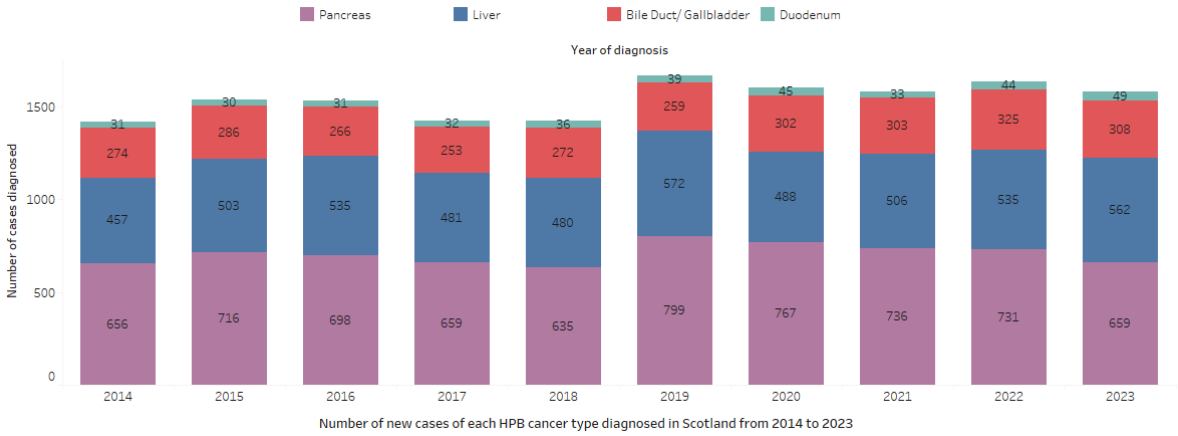
The NMCN for HepatoPancreatoBiliary (HPB) Cancers launched in 2005 with the aim of providing quality and equitable care for all patients in Scotland. The purpose of this report is to present an assessment of performance of HPB Cancer Services relating to patients diagnosed across Scotland during 2023 through clinical audit data and to provide a summary of performance against the HPB cancer Quality Performance Indicators (QPIs). Regular reporting of activity and performance is a fundamental requirement of an NMCN to assure the quality of care delivered across the country and these audit data underpin much of the regional and national service improvement and development work of the network.

To ensure the success of the National Cancer QPIs in driving quality improvement in cancer care across NHS Scotland it is critical that the QPIs continue to be clinically relevant and focus on areas which will result in improvements to the quality of patient care. A programme of formal reviews of all QPIs was implemented whereby all tumour specific QPIs were reviewed following three years of comparative reporting. Formal reviews of the HPB cancer QPIs were undertaken in 2017, 2020 and 2022 with the revised QPIs (v5.0) published in January 2023. Performance reported within this report was measured against v5.0 of the HPB cancer QPIs.[1]

Background

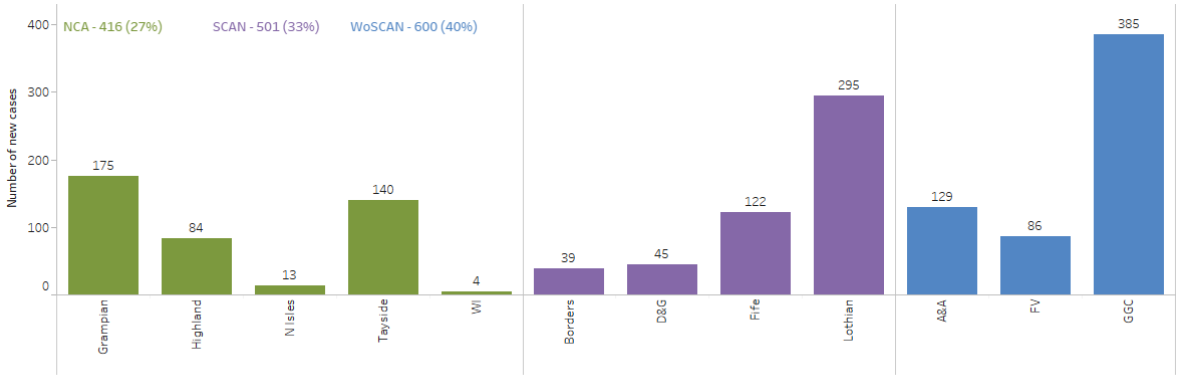
National Context

HPB cancers are a rare group of cancers. In 2023, the audit identified 1,517 patients diagnosed with a new primary cancer of the liver, pancreas, bile duct, gallbladder or duodenum in Scotland. Of all HPB cancer diagnoses, pancreatic cancer accounted for the majority of cases (41.5%), liver cancer accounted for just over one third (35.7%) and bile duct, gallbladder and duodenum cancers represented just under one quarter (22.9%). The figure below illustrates the proportion of new cases of each HPB cancer type diagnosed in Scotland over the last nine years.



Number of new cases of each HPB cancer type diagnosed in Scotland from 2014 to 2023

The distribution of the 1,517 patients diagnosed in 2023 across the fourteen Scottish NHS Boards is presented below. The West of Scotland Cancer Network (WoSCAN) is the most populous of the three Regional Cancer Networks in Scotland and, with 600 patients diagnosed in 2023, comprises 39.6% of all HPB cancer diagnoses in Scotland. The North Cancer Alliance (NCA) accounts for over one-quarter 27.4%, and the South-East Cancer Alliance Network (SCAN) represents almost one-third 33.0%. NHS Greater Glasgow and Clyde (GGC) had the greatest number of patients, followed by NHS Lothian. This reflects the population distribution in Scotland as these are the two most heavily populated NHS Boards.[2]



Number of new cases diagnosed with HPB cancer within each NHS Board across Scotland 2023

HPB Cancer Treatment Centres

The table below details the five HPB Cancer Centres in Scotland. These are considered the centres for specialist treatment, which includes surgery, interventional radiology (ablation and TACE) and systemic anti-cancer therapy (SACT). Patients may receive diagnostic and palliative care elsewhere, usually in their local hospital, however most patients are referred to one of the five centres for specialist management. Additionally, the Scottish Liver Transplant Unit (SLTU), located in the Royal Infirmary of Edinburgh (RIE) are referred all liver transplant cases in Scotland, this being one of the treatment options in the management of patients with primary liver cancer.

Centre	Constituent Hospital(s)	Treatment provided
Aberdeen	Aberdeen Royal Infirmary	Surgery, TACE, SACT and Radiotherapy
Dundee	Ninewells Hospital	Surgery, Ablation and TACE, SACT and Radiotherapy
Edinburgh*	Royal Infirmary of Edinburgh (RIE) Western General Hospital (WGH)	Surgery, Ablation and TACE, SACT and Radiotherapy
Glasgow	Glasgow Royal Infirmary (GRI) Gartnavel General Hospital (GGH) Queen Elizabeth University Hospital (QEUH) Beatson West of Scotland Cancer Centre (BWoSCC)	Surgery and TACE Ablation TACE SACT and Radiotherapy
Inverness	Raigmore Hospital	Surgery, Ablation, TACE, SACT and Radiotherapy

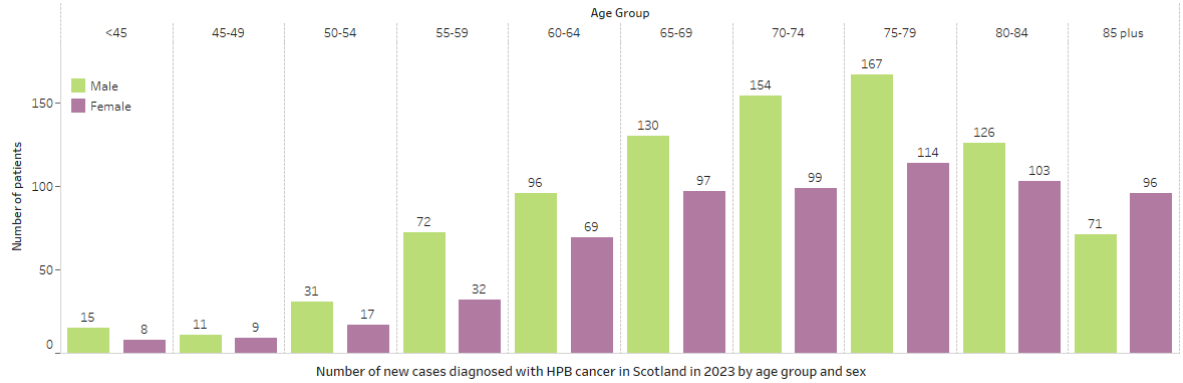
* NB in addition to patients diagnosed in SCAN, patients diagnosed in NHS Forth Valley (WoSCAN) are also referred to the Edinburgh HPB MDT

Incidence and Survival

Liver and intrahepatic bile duct cancers have been listed in the top twenty most common cancers in Scotland, ranking fourteenth in 2021.[3] The rate of new diagnoses of liver cancer fell during the pandemic and in 2021 returned to levels that would have been expected if the pandemic had not occurred, with liver cancer ranking as tenth/eleventh most common cancer in males in 2021 and the incidence in females showing a 12% increase in 2021.[3] Indicating the trend observed in females over the decade up to 2019 is set to continue.[4] The percentage frequency of liver cancer is however relatively low at 1.9% of all cancer types.[3] Liver cancer was ranked as the ninth most common cause of death from cancer in 2021, and the 10-year percentage change in mortality rates show considerable increases of 23% and 28% for males and females, respectively. However, the increases in mortality are largely driven by increased occurrence as there have been some improvements in outcomes over time.[4]

Pancreatic cancer has been identified as the tenth/eleventh most common cancer in all persons and males, and the eighth/ninth most common in females in Scotland in 2021.[3] Whilst pancreatic cancer is relatively rare (approximately 2.5% of all cancers diagnosed in 2021), it was the sixth most common cause of death from cancer in Scotland in 2021.[4] Increases in mortality from pancreatic cancer – which were very small in men – may reflect a complex mixture of increasing incidence, but improving survival.[4] Pancreatic cancers tend to present at an advanced stage and are less amenable to treatment, resulting in poor survival.[1]

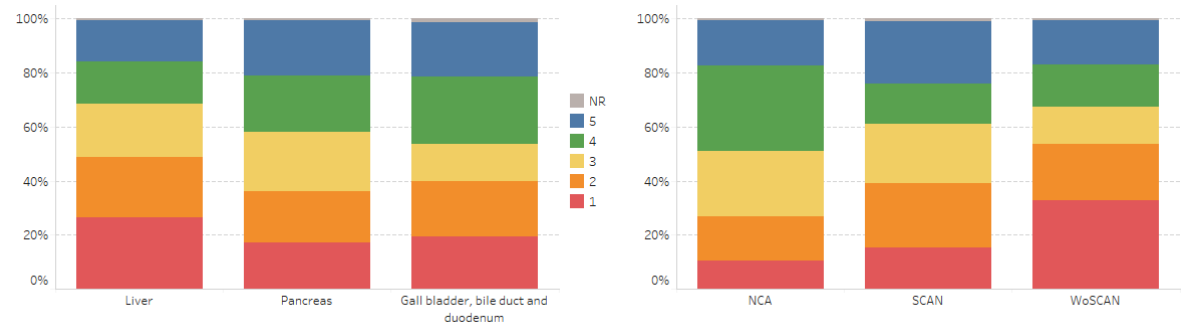
HPB cancers occur most frequently later in life. The figure below illustrates the number of new cases in 2023 by age group and sex. The incidence of HPB cancers is higher in males in most age groups; however, as women live longer than men, the total number of cases diagnosed in women aged 85 years or more is greater than for males. Although most cases occur in older individuals for both sexes, it is noted that almost one quarter of HPB cancers were diagnosed in individuals under 65 years of age (23.7%).



Number of new cases diagnosed with HPB cancer in Scotland in 2023 by age group and sex

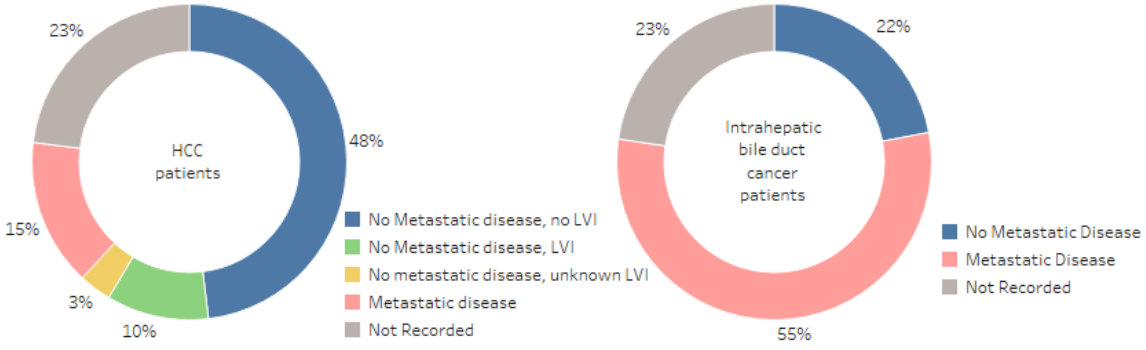
Deprivation

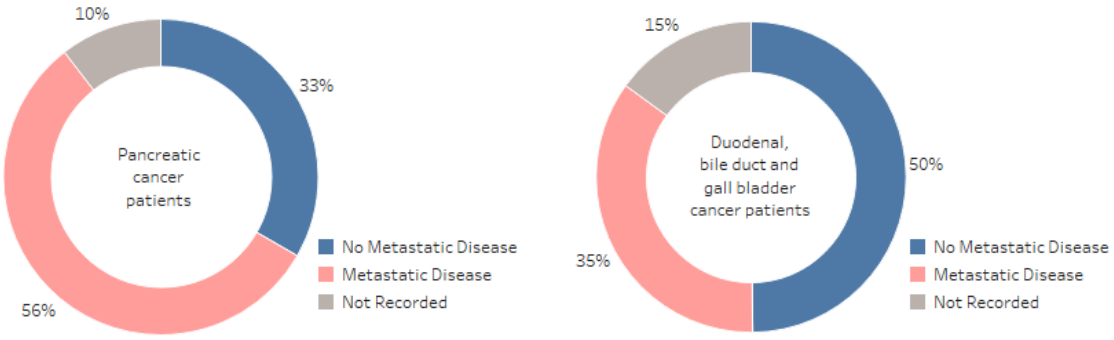
The figures below show the spread across the Scottish Index of Multiple Deprivation (SIMD) 2020 quintiles for patients diagnosed with HPB cancer by site of disease and region of diagnosis; 1 represents the most deprived areas and 5 represents the least deprived.



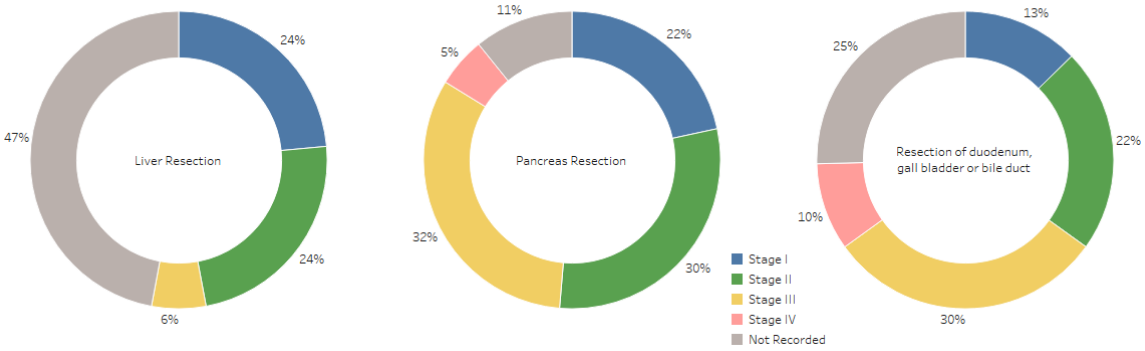
Stage

The proportion of patients that had metastatic disease is shown in the following charts; for HCC information on lymphovascular invasion is also included where available. Across all tumours the recording of information has remained relatively stable compared to last year when the percentage of patients without recorded information was 25% (HCC), 24% (intrahepatic biliary ducts), 11% (pancreas) and 15% (duodenal). There is continued variation between NHS Boards in the amount of information 'not recorded', however some boards are demonstrating improvements.



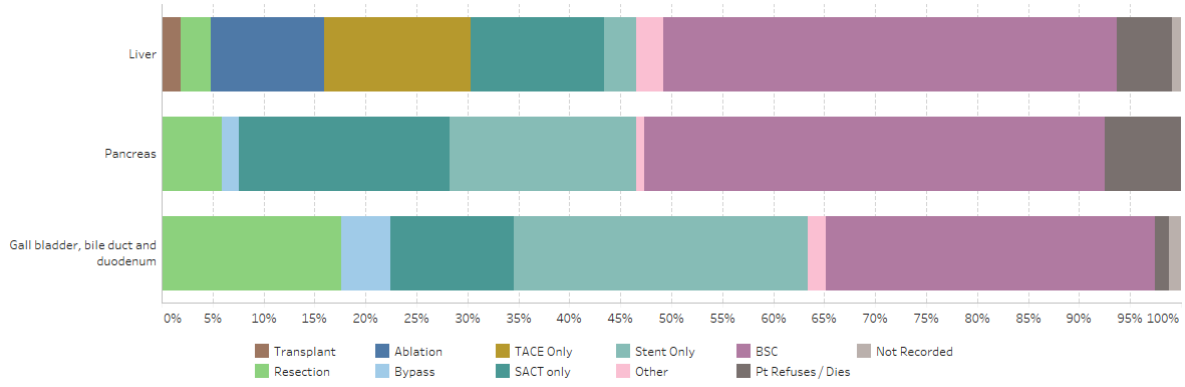


TNM staging for surgical resection patients is shown below and demonstrates a decline in recording compared to last year. Liver resections have seen the most marked reduction with staging 'not recorded' increasing from 20% to 47%, followed by resection of duodenum, gallbladder or bile duct which increased from 21% to 25%. Stage 'not recorded for pancreas resections rose from 8% to 11% in the last year.



Treatment

The type of treatment HPB cancer patients receive across Scotland during their first episode of care following diagnosis is illustrated below. Overall, 12.1% of all patients received treatment with curative intent (transplant, resection or ablation), 40.1% received palliative treatment while a further 47.6% received no active treatment.



Methodology

Abbreviations are detailed in Appendix 1. Further detail on the audit and analysis methodology and data quality is available in the meta data within Appendix 2.

Results

Results, for each QPI, are shown in detail in the following sections. Data are by location of diagnosis, or treatment, and illustrate NHS Board or treatment centre performance against each target and overall regional performance for each performance indicator. Where the number of cases meeting the denominator criteria for any indicator is less than five, the percentage calculation is restricted in associated charts and tables to avoid unwarranted variation associated with small numbers and to minimise the risk of disclosure. A dash (-) denotes restricted data and an asterisk (*) denotes a denominator of zero. Any commentary provided by NHS Boards relating to restricted indicators will is included to record efforts of continuous improvement. Issues highlighted by the data analysis can be used to identify and develop specific actions within regions and NHS Boards.

As highlighted in the Executive Summary, data comparison across Scotland and regions has been impacted due to NHS Lanarkshire workforce capacity issues. Please see the statement issued on behalf of NHS Lanarkshire Executive Medical Director, Director of Quality and Lead Cancer Clinician for further detail.

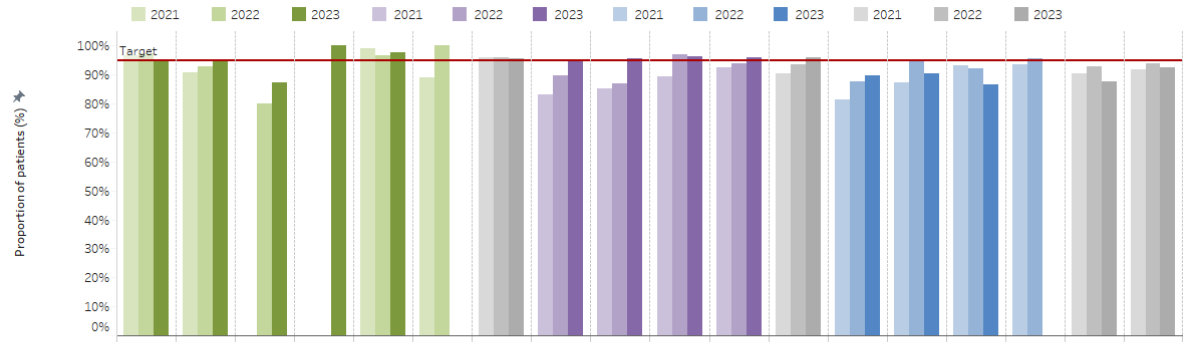
QPI 1

Multi-Disciplinary Team (MDT) Meeting

Evidence suggests that patients with cancer who are managed through a multi-disciplinary team (MDT) experience better outcomes and improved satisfaction with care. The tolerance within the target allows for patients who need urgent treatment.[1]

QPI Title:	**Patients with HPB cancer should be discussed by an MDT prior to definitive treatment**
Numerator:	**Number of patients with HPB cancer discussed at the MDT before definitive treatment**
Denominator:	**All patients with HPB cancer**
Exclusions:	**Patients who died before first treatment**
Target:	**95%**

Five NHS Boards performed above target, although two boards (Grampian and Highland) only narrowly missed achieving the 95% target and one board (Orkney) was due to skewing of data due to small numbers. Both NCA and SCAN regions met the target. None of the NHS Boards within WoSCAN met the target which resulted in this being failed regionally and nationally. NHS Lanarkshire data has been redacted as there was not a complete dataset. SCAN have managed to improve on previous performance, whereas in WoSCAN performance is slightly lower than last year (87.7%).



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	163	75	7	5	132	-	385	37	43	109	280	469	112	75	326	0	513	1367
Denominator	172	79	8	5	135	-	402	39	45	113	292	489	125	83	377	0	585	1476
Performance (%)	94.8%	94.9%	87.5%	100%	97.8%	-	95.8%	94.9%	95.6%	96.5%	95.9%	95.9%	89.6%	90.4%	86.5%	*	87.7%	92.6%

NHS Ayrshire & Arran (A&A), Forth Valley (FV) and GGC Boards failed the QPI. Reasons were incidental findings, emergency treatment prior to MDT (e.g. stents), BSC and patient choice.

- Patient choice or clinically appropriate treatment.

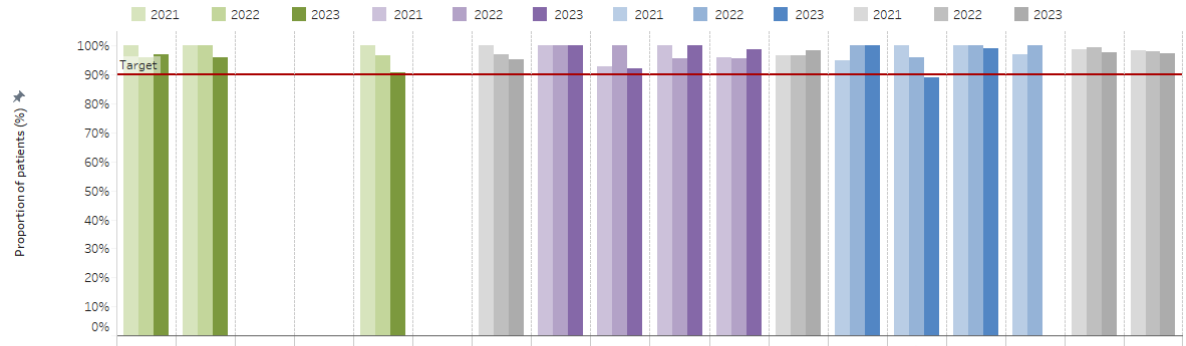
QPI 2

Diagnosis and Staging of HCC

The management of Hepatocellular Carcinoma (HCC) is determined by both the stage of HCC and the presence or severity of underlying chronic liver disease.1 Complete information is required to enable correct management decisions to be made by the multi-disciplinary team (MDT), such as the location, number and size of tumours. The 90% target set for QPI 2 accounts for the fact that some patients may have significant co-morbidities and therefore may not be fit for investigation and/or treatment.[1]

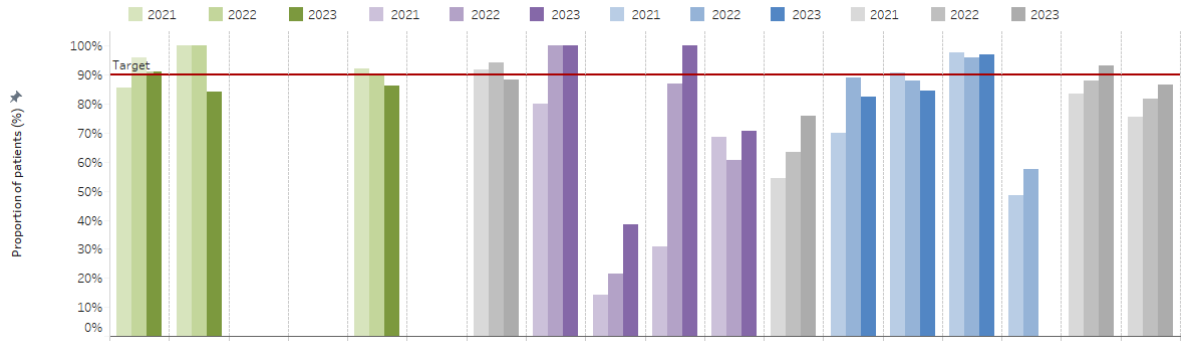
QPI Title:	**Patients with Hepatocellular Carcinoma (HCC) should be appropriately diagnosed and staged**
Numerator:	**(i) Number of patients with HCC undergoing either CT or MRI** **(ii) Number of patients with HCC undergoing either CT or MRI with full information recorded** **(iii) Number of patients with HCC undergoing either CT or MRI prior to first treatment who are assigned a BCLC Score**
Denominator:	**All patients with HCC**
Exclusions:	**No exclusions**
Target:	**90%**

Across Scotland 97.4% of patients with HCC had either a CT or MRI, meeting the 90% target, although slightly lower than last year. All NHS Boards with patients diagnosed with HCC in 2023 met this target as did all three regions. Please note NHS Lanarkshire's incomplete dataset has been redacted.



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	33	25	-	-	20	0	80	5	12	32	74	123	23	24	128	0	175	378
Denominator	34	26	-	-	22	0	84	5	13	32	75	125	23	27	129	0	179	388
Performance (%)	97.1%	96.2%	-	-	90.9%	*	95.2%	100%	92.3%	100%	98.7%	98.4%	100%	88.9%	99.2%	*	97.8%	97.4%

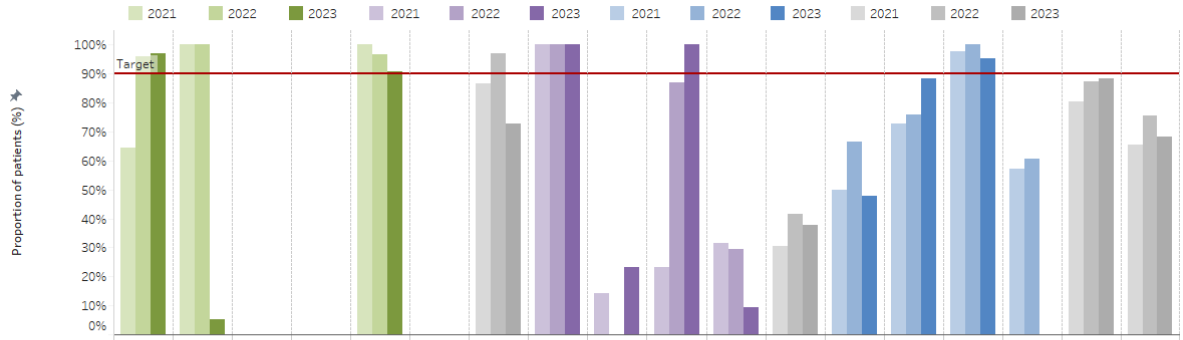
Specification (ii) considers the proportion of patients that have a CT or MRI imaging where full information is provided within the radiology report. Across Scotland 86.6% of patients with HCC had CT or MRI imaging where all required information was included within the report, below the target of 90%. Four of the eleven Boards with patients with HCC cancer met this target. WoSCAN was the only region to achieve the target (93.3%), but it should be noted that one boards figures are omitted from the dataset.



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	31	16	-	-	19	0	68	5	5	32	53	95	19	22	125	0	166	329
Denominator	34	19	-	-	22	0	77	5	13	32	75	125	23	26	129	0	178	380
Performance (%)	91.2%	84.2%	-	-	86.4%	*	88.3%	100%	38.5%	100%	70.7%	76%	82.6%	84.6%	96.9%	*	93.3%	86.6%

Review of patients not meeting specification (ii) indicates that the primary reason for health boards not meeting this QPI was the frequent omission of Child-Pugh scores or the absence of recorded vascular invasion, though there are several criteria that must be met, to meet the QPI. While there has been progress, the QPI remains challenging. Ongoing efforts are dedicated to enhancing the MDT referral process, and the network will be developing pathway guidelines incorporating benefits identified in the Scottish Government funded Pathway Improvement Project.

Specification (iii) considers the proportion of patients that have a CT or MRI imaging prior to first treatment who are assigned a BCLC Score. Across Scotland 68.4% of patients were assigned a BCLC Score, below the target of 90%. Again, five of the eleven boards with HCC cancer patients met this target. No region achieved the QPI target. Performance in SCAN continues to be considerably lower than in other regions. Despite a positive trend in previous years, there was a decline this year. NHS Lothian plan to include BCLC score into the MDT referral form in future.



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	33	1	-	-	20	0	56	5	3	32	7	47	11	23	123	0	157	260
Denominator	34	19	-	-	22	0	77	5	13	32	75	125	23	26	129	0	178	380
Performance (%)	97.1%	5.3%	-	-	90.9%	*	72.7%	100%	23.1%	100%	9.3%	37.6%	47.8%	88.5%	95.3%	*	88.2%	68.4%

This is the third year this specification has been reported on and modest improvements in performance are observed across many NHS Boards and all regions. BCLC score was incorporated into HCC referral forms by all centres in 2020, however Child Pugh score is required to calculate BCLC. Recording of Child Pugh score (required to meet specification (ii)) therefore impacts on the

performance against this specification. As for specification (ii), early signs of improvement were indicated for HPB cancer patients within the pathway improvement project.

- Patient choice or clinically appropriate treatment.
- Some boards highlighted intentions around documenting BCLC status.

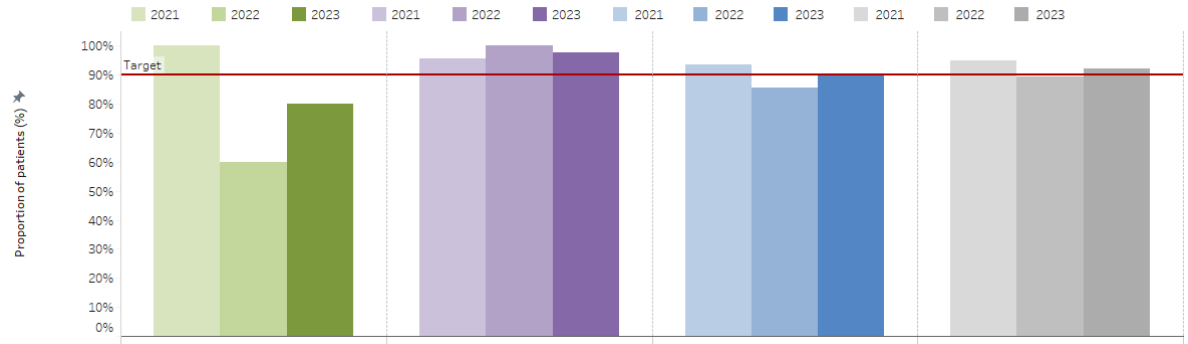
QPI 3

Referral to Scottish Liver Transplant Unit

The Scottish Liver Transplant Unit (SLTU) was established in 1992 at the Royal Infirmary in Edinburgh and is the specialist centre for liver transplantation in Scotland. Liver transplantation is associated with good long-term outcome in selected patients with HCC. All patients with early HCC should be considered for liver transplantation and there should be equity of access to liver transplantation across Scotland. The current UK listing criteria are well validated selection criteria based on tumour number and size.

QPI Title:	**Patients with early HCC should be referred for consideration of liver transplantation**
Numerator:	**Number of patients with HCC meeting the UK listing criteria that are referred to SLTU**
Denominator:	**All patients with HCC meeting UK listing criteria1 (as defined by NHS Blood and Transplant)**
Exclusions:	**Patients who refuse treatment** **Patients with evidence of vascular invasion** **Patients with extrahepatic disease**
Target:	**90%**

Across Scotland 92.2% of HCC patients who met the UK listing criteria were referred to SLTU, achieving the 90% target. NCA demonstrated improved performance this year and the two patients were not fit for treatment. Comments noted that the key challenge lies in the fact that numerous patients do not qualify for transplantation due to reasons beyond the Milan criteria and state this adversely impacts the QPI. Results are reported by region rather than NHS Board due to the small numbers of patients involved.



2023 Data	NCA	SCAN	WoSCAN	Scotland
Numerator	8	43	56	107
Denominator	10	44	62	116
Performance (%)	80%	97.7%	90.3%	92.2%

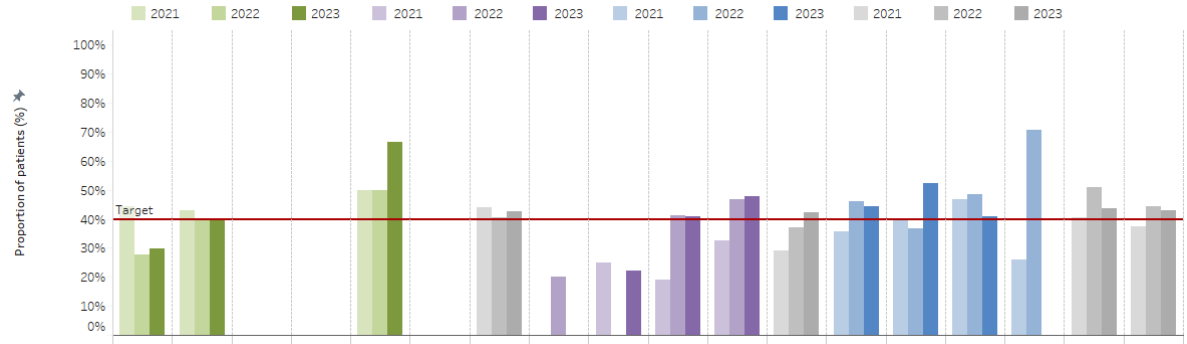
QPI 4

Palliative Treatment for HCC

Trans-arterial chemoembolisation (TACE) and Systemic Anti-Cancer Therapy (SACT) are palliative therapies which have been demonstrated to improve survival in patients with HCC that are not suitable for treatments with curative intent.[1] Historically, radiotherapy has not been used widely for the treatment of HCC due to the risk of radiation induced liver damage (RILD). However, recent technological advances in radiotherapy targeting have allowed it to become a viable treatment option for HCC.[6] The target for this QPI is 40% to account for the fact that some patients will have significant co-morbidities or a fitness level which means that TACE, SACT or radiotherapy are not appropriate.[1]

QPI Title:	**Patients with Hepatocellular Carcinoma (HCC) who are not suitable for curative treatment should receive palliative treatment**
Numerator:	**Number of patients with HCC not undergoing treatment with curative intent who receive TACE, SACT or radiotherapy**
Denominator:	**All patients with HCC not undergoing treatment with curative intent (liver transplantation, resection or ablative therapies)**
Exclusions:	**Patients who refuse treatment** **Patients with decompensated chronic liver disease (Child-Pugh Grade C)**
Target:	**40%**

Of the 263 patients diagnosed with HCC and not undergoing treatment with curative intent across Scotland in 2023, 113 (43%) received palliative treatment, achieving the national 40% target. All regions met the QPI with the target missed by NHS Grampian, Borders and NHS Dumfries and Galloway (D&G). NHS Lanarkshire dataset is incomplete for 2023 and therefore redacted.



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	8	6	0	-	12	0	26	-	2	9	23	35	8	12	32	0	52	113
Denominator	27	15	0	-	18	0	61	-	9	22	48	83	18	23	78	0	119	263
Performance (%)	29.6%	40%	*	-	66.7%	*	42.6%	-	22.2%	40.9%	47.9%	42.2%	44.4%	52.2%	41%	*	43.7%	43%

Cases were reviewed by NHS Boards that did not meet the target. Vast majority of reviewed patients were not fit for treatment due to comorbidities or were for BSC.

- All patients treated clinically appropriately.

QPI 5

30 and 90 Day Mortality after Curative or Palliative Treatment for HCC

Disease specific interventions for HCC are delivered with either curative (transplant, resection, ablation) or palliative (TACE) intent. In either case, treatments should be performed safely with low rates of mortality and should not be undertaken in futile situations.[1]

QPI Title:	**30 day and 90 day mortality following treatment for Hepatocellular Carcinoma (HCC) with curative or palliative intent**
Numerator:	**Number of patients with HCC not undergoing treatment with curative intent who receive TACE, SACT or radiotherapy**
Denominator:	**All patients with HCC undergoing disease specific treatment (liver transplant, resection, ablation or TACE)**
Exclusions:	**No exclusions**
Target:	**Curative: 30 days <5%** **90 days <7.5%** **Palliative: 30 days <10%**

National mortality figures by treatment type for 2021 to 2023 are shown in the table below. Due to the small numbers of patients involved, data for the surgical centres in the North of Scotland (Aberdeen, Inverness and Dundee) are aggregated. No patients died within 30 or 90 days of curative treatment or within 30 days of palliative treatment, in 2023, clearly meeting all three targets for this QPI.

Liver Transplant		Aberdeen, Inverness and Dundee 2023	Edinburgh 2023	Glasgow 2023	Scotland 2023	Scotland 2022	Scotland 2021
30 day mortality	Numerator	0	0	0	0	0	0
	Denominator	0	10	0	10	11	7
Target < 5%	Performance (%)	*	0%	*	0%	0.0%	0.0%
90 day mortality	Numerator	0	0	0	0	0	0
	Denominator	0	10	0	10	11	7
Target < 7.5%	Performance (%)	*	0%	*	0%	0.0%	0.0%

Resection		Aberdeen, Inverness and Dundee 2023	Edinburgh 2023	Glasgow 2023	Scotland 2023	Scotland 2022	Scotland 2021
30 day mortality	Numerator	0	0	0	0	0	0
	Denominator	0	10	0	10	9	13
Target < 5%	Performance (%)	*	0%	*	0%	0.0%	0.0%
90 day mortality	Numerator	0	0	0	0	0	0
	Denominator	0	10	0	10	9	13
Target < 7.5%	Performance (%)	*	0%	*	0%	0.0%	0.0%

Ablation		Aberdeen, Inverness and Dundee 2023	Edinburgh 2023	Glasgow 2023	Scotland 2023	Scotland 2022	Scotland 2021
30 day mortality	Numerator	-	0	0	0	0	0
	Denominator	-	27	33	61	53	58
Target < 5%	Performance (%)	-	0%	0%	0%	0.0%	0.0%
90 day mortality	Numerator	-	1	0	1	0	0
	Denominator	-	27	31	59	50	56
Target < 7.5%	Performance (%)	-	3.7%	0%	1.7%	0.0%	0.0%

TACE		Aberdeen, Inverness and Dundee 2023	Edinburgh 2023	Glasgow 2023	Scotland 2023	Scotland 2022	Scotland 2021
30 day mortality	Numerator	0	0	0	0	0	1
	Denominator	19	51	18	88	82	69
Target < 5%	Performance (%)	0.00%	0.00%	0.00%	0.00%	0.0%	1.4%

No patients died within 90 days of ablative therapy or TACE. There will be continued review of any patient that dies following treatment at the monthly centre mortality and morbidity reviews and the annual morbidity and mortality review.

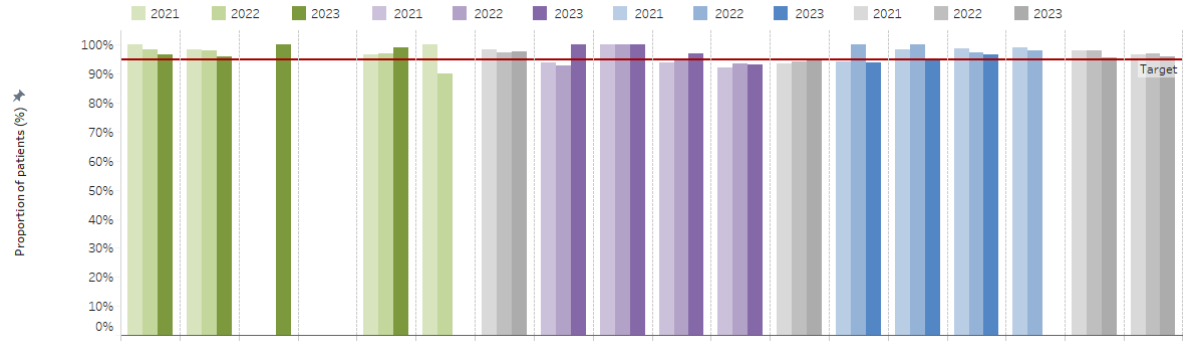
QPI 6

Radiological Diagnosis of Pancreatic, Duodenal or Biliary Tract Cancer

Accurate staging is important to ensure appropriate treatment is delivered and futile interventions avoided. The primary tumour and its local extent should be defined, and the presence or absence of metastatic disease assessed. CT is recommended for the diagnosis of pancreatic cancer as it will accurately delineate tumour size, infiltration, and the presence of metastatic disease.

QPI Title:	**Patients with pancreatic, duodenal or biliary tract cancers should undergo computerised tomography (CT) of the abdomen to evaluate the extent of disease**
Numerator:	**Number of patients with pancreatic, duodenal or biliary tract cancer who undergo CT of the abdomen prior to first treatment**
Denominator:	**All patients with pancreatic, duodenal or biliary tract cancer**
Exclusions:	**No exclusions**
Target:	**95%**

Of the 975 patients diagnosed with pancreatic, duodenal or biliary tract cancer in Scotland in 2023, 937 (96.1%) had a CT of the abdomen prior to first treatment. The QPI target of 95% was met at a national level. NHS A&A and NHS Lothian narrowly missed reaching this target.



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	118	50	6	-	102	-	283	31	27	65	174	297	77	54	226	0	357	937
Denominator	122	52	6	-	103	-	290	31	27	67	187	312	82	57	234	0	373	975
Performance (%)	96.7%	96.2%	100%	-	99%	-	97.6%	100%	100%	97%	93%	95.2%	93.9%	94.7%	96.6%	*	95.7%	96.1%

A review of the patients not meeting this measure in Ayrshire & Arran and Lothian identified that patients were dealt with clinically appropriately. Some patients received a first treatment of stent insertion prior to CT, were incidental cancer found at surgery and received CT abdomen before surgery and definitive treatment. Other patients' wishes precluded surgery. Often patients are receiving urgent treatment necessary before the CT scan is performed. Patients are receiving appropriate treatment.

- Staging always attempted where appropriate. All patients were dealt with clinically appropriately.

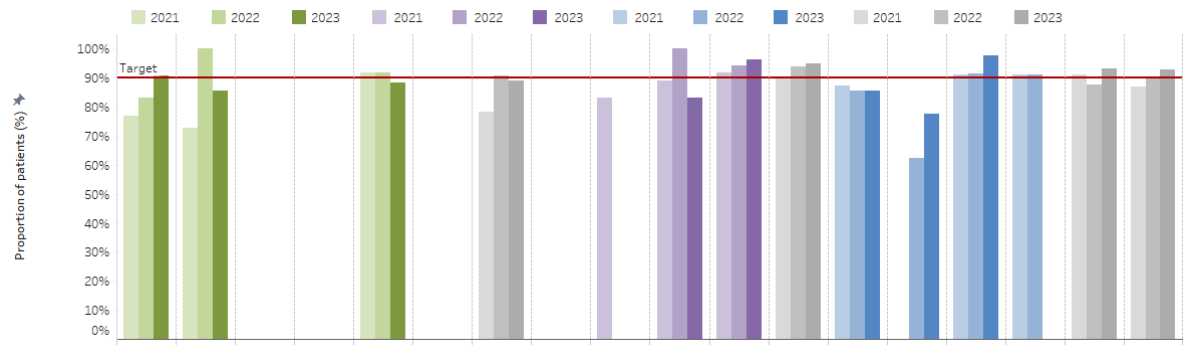
QPI 7

Pathological Diagnosis of Pancreatic, Duodenal or Biliary Tract Cancer

In patients who are being considered for anti-cancer therapy, definitive cytological or histological diagnosis is essential before chemotherapy to ensure full benefit of any treatment offered. Even when no active treatment is being considered, a definitive diagnosis is valuable in helping to inform patients and carers about the nature of the disease and the likely prognosis.[1] It is not always appropriate, safe or possible to obtain a histological or cytological diagnosis due to the performance status of the patient or advanced nature of the disease. This is reflected in the 90% target, as is patient choice.

QPI Title:	**Patients with pancreatic, duodenal or biliary tract cancers having non-surgical treatment should have a cytological or histological diagnosis**
Numerator:	**Number of patients with pancreatic, duodenal or distal biliary tract cancer undergoing non-surgical treatment who have a histological or cytological diagnosis (e.g. brush cytology, endoscopic or image guided biopsy)**
Denominator:	**All patients with pancreatic, duodenal or distal biliary tract undergoing non-surgical treatment**
Exclusions:	**No exclusions**
Target:	**90%**

Of the 138 patients diagnosed with pancreatic, duodenal or distal biliary tract and undergoing non-surgical treatment, in Scotland in 2023, 92.8% had a cytological or histological diagnosis, meeting the target. The QPI was met by three NHS Boards, although five boards did not have any cases. Of note, NHS Lanarkshire data is incomplete and therefore redacted.



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	10	6	-	0	15	-	33	-	-	5	27	39	6	7	43	0	56	128
Denominator	11	7	-	0	17	-	37	-	-	6	28	41	7	9	44	0	60	138
Performance (%)	90.9%	85.7%	-	*	88.2%	-	89.2%	-	-	83.3%	96.4%	95.1%	85.7%	77.8%	97.7%	*	93.3%	92.8%

In various boards and regions, patients' pathology reports were highly suspicious of cancer, but non-diagnostic. Efforts have been made to obtain histological diagnoses where appropriate. In some cases, patients with strong radiological findings and supporting CA 19-9 results were considered for oncological treatment even in the absence of a definitive histological or cytological diagnosis. Attainment of this QPI target is susceptible to fluctuation due to the very small numbers involved.

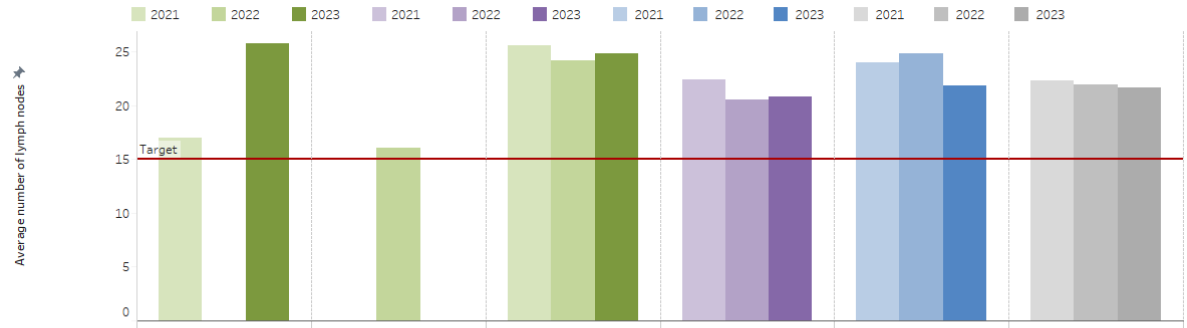
QPI 10

Lymph Node Yield

Adequate lymph node yield is important for accurate staging and is a surrogate marker of adequacy of en bloc cancer resection and diligence of the pathologist. Evidence suggests that pancreatoduodenectomy should yield a minimum of 15 lymph nodes from the principal specimen.[1]

QPI Title:	**In patients undergoing surgery for pancreatic, duodenal or distal biliary tract cancer the number of lymph nodes examined should be maximised**
Numerator:	**Total number of lymph nodes resected and pathologically examined for all patients with pancreatic, duodenal or distal biliary tract cancer who undergo pancreatoduodenectomy**
Denominator:	**All patients with pancreatic, duodenal or distal biliary tract cancer who undergo pancreatoduodenectomy**
Exclusions:	**No exclusions**
Target:	**Average of 15 nodes per patient per centre**

In 2023, as in previous years, all five surgical centres across Scotland had an average lymph node yield of more than 15 nodes per patient. Across Scotland patients who had a pancreatoduodenectomy had an average of 21.7 lymph nodes resected and pathologically examined.



2023 Data	Aberdeen	Inverness	Dundee	Edinburgh	Glasgow	Scotland
No. nodes examined	129	-	124	666	414	1365
No. surgeries	5	-	5	32	19	63
Average no. nodes	25.8	-	24.8	20.8	21.8	21.7

QPI 11

30- and 90-Day Mortality following Surgical Resection for Pancreatic, Duodenal or Distal Biliary Tract Cancer

Mortality following resection for HPB cancer has fallen over the past 30 years and in specialist units should be less than 5%.[1] Treatment related mortality is a marker of the quality and safety of the whole service provided by the MDT.

QPI Title:	**30-day and 90-day mortality following surgical resection for pancreatic, duodenal or distal biliary tract cancer**
Numerator:	**Number of patients with pancreatic, duodenal or distal biliary tract cancer who undergo surgical resection that die within 30/90 days of treatment**
Denominator:	**All patients with pancreatic, duodenal or distal biliary tract cancer who undergo surgical resection**
Exclusions:	**No exclusions**
Target:	**30 days <5%** **90 days <7.5%**

Across Scotland, one patient died within 30 days and two died within 90-days of surgical resection, such that the targets (<5% and <7.5%, respectively) were met nationally (2.8% and 1.4%, respectively). The 30-day target was met by all regions with 2.6% mortality in Edinburgh and 0% in all other centres. NCA failed to reach the 90-day mortality following surgical resection target with 8.3%, as Dundee had one patient who died within 90 days, in comparison to Edinburgh (2.7%) and Glasgow (0%).

Resection		Aberdeen, Inverness and Dundee 2023	Edinburgh 2023	Glasgow 2023	Scotland 2023	Scotland 2022	Scotland 2021
30 day mortality	Numerator	0	1	0	1	1	0
	Denominator	12	38	23	73	73	93
Target < 5%	Performance (%)	0.00%	2.63%	0.00%	1.37%	1.4%	0.0%
90 day mortality	Numerator	1	1	0	2	1	3
	Denominator	12	37	23	72	71	86
Target < 7.5%	Performance (%)	8.33%	2.70%	0.00%	2.78%	1.4%	3.2%

Case details for any patient that dies following treatment are reviewed at monthly centre morbidity and mortality reviews and annual national morbidity and mortality review.

- All patients received clinically appropriate treatment

QPI 12

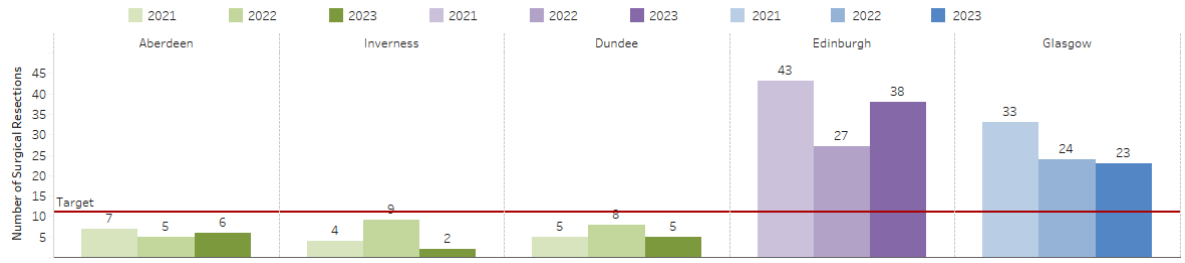
Volume of Cases per Centre/Surgeon

HPB resectional surgery should be performed by surgeons who work in a specialist multidisciplinary team in a specialist centre, with outcomes audited regularly and benchmarked nationally. Surgical resection should be confined to specialist centres to increase resection rates and reduce hospital morbidity and mortality. The literature demonstrates that there is a relationship between increasing surgical volumes for major HPB resections and improved patient outcomes (mortality).[1]

QPI Title:	**HPB resectional surgery should be performed in hospitals where there is an appropriate annual volume of such cases**
Target:	**a) Minimum of 11 cases per centre in a one-year period** **b) Minimum of 4 procedures per surgeon in a one-year period**

Number of surgical resections per centre

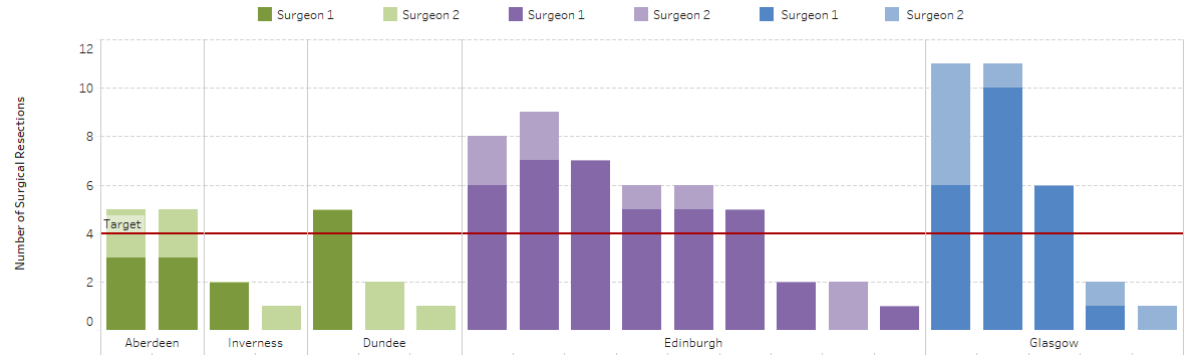
Analysis by surgical centre indicates that this target was met in two of the five surgical centres.



The Aberdeen Centre note that low patient numbers are indicative of patients being referred to other centres due to capacity pressures, and note that these have since recovered, with patients now offered treatment within their home board with enhanced capacity and scheduling on recovery. The Dundee Centre noted that additional pancreatic resections were conducted, but were excluded from analysis due to pathology criteria. Other comments include highlighting the ongoing efforts to address the issue through the 'Getting It Right for The North Programme' which is focused on service redesign for HPB cancer, recognising the significance of case volume and supporting the proposal for a single cancer centre for low-volume complex cancer surgery within the region.

Number of surgical resections per surgeon

Of the 21 surgeons undertaking surgical resection in 2023, 12 undertook four or more surgeries within the year, meeting the QPI target. Of the nine surgeons performing less than four surgeries in the year, four were from surgical centres in the North, three were from Edinburgh and two were from Glasgow.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Performed as surgeon 1	3	3	2	0	5	0	0	6	7	7	5	5	5	2	0	1	6	10	6	1	0
Performed as surgeon 2	2	2	0	1	0	2	1	2	2	0	1	1	0	0	2	0	5	1	0	1	1
Total	5	5	2	1	5	2	1	8	9	7	6	6	5	2	2	1	11	11	6	2	1

Performance against this QPI continues to be challenging. Glasgow noted that one surgeon has increased and one surgeon has stepped back from pancreatic resectional work. Edinburgh expects increased number of resections to impact and notes the data collection time period as problematic, suggesting consideration at formal review. Dundee also notes QPI definition issues and suggests more operations for inclusion in criteria. Inverness note data collection error. Aberdeen had a review period for pathway improvement which impacted number of operations.

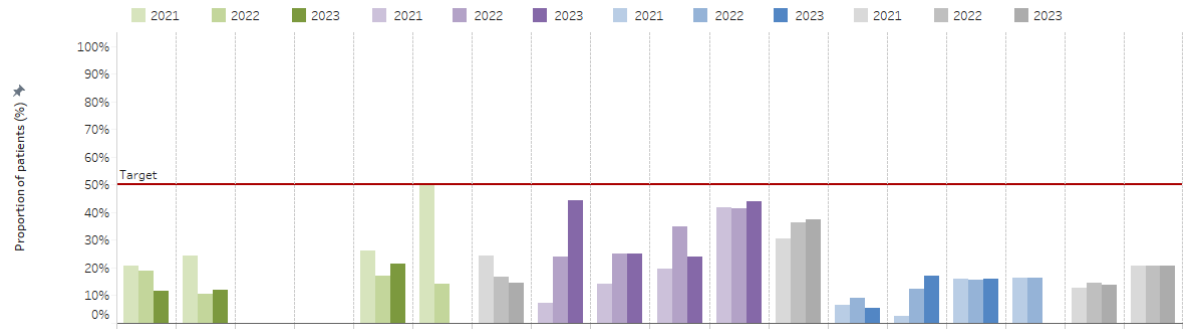
QPI 15

Access to Oncology Services for Inoperable Pancreatic, Duodenal or Biliary Tract Cancer

Approximately 80% of patients with pancreatic, duodenal or biliary tract cancer will not be suitable for potentially curative surgical resection due to fitness or advanced disease at presentation. Palliative treatment options have increased in recent years, however rapid disease progression can result in potentially fit patients becoming unsuitable for treatment; therefore timely assessment is important.

QPI Title:	**Patients with inoperable pancreatic, duodenal or biliary tract cancer should be seen by an oncologist to assess suitability for systemic treatment**
Numerator:	**Number of patients with pancreatic, duodenal or biliary tract cancer not undergoing surgery who are seen by an oncologist (or offered an oncology clinic appointment) within 6 weeks of initial diagnostic CT scan**
Denominator:	**All patients with pancreatic, duodenal or biliary tract cancer not undergoing surgery**
Exclusions:	**No exclusions**
Target:	**50%**

Of the 688 patients diagnosed with pancreatic, duodenal or distal biliary tract and not undergoing surgery, in Scotland in 2023, 21.5% were seen by an oncologist (or offered an oncology clinic appointment) within 6-weeks of diagnosis, below the target of 50%, a similar rate as measured in the previous two years.



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	9	5	-	-	16	-	30	12	5	13	51	81	3	7	27	0	37	148
Denominator	77	42	-	-	75	-	204	27	20	54	116	217	56	41	170	0	267	688
Performance (%)	11.7%	11.9%	-	-	21.3%	-	14.7%	44.4%	25%	24.1%	44%	37.3%	5.4%	17.1%	15.9%	*	13.9%	21.5%
Additional Information																		
% patients discussed at any time	25%	26%	-	-	40%	-	31%	67%	35%	37%	58%	52%	20%	32%	39%	-	34%	39%
% of appointments within 6 weeks	39%	45%	-	-	53%	-	46%	67%	71%	65%	75%	72%	27%	54%	41%	-	41%	55%

This QPI has continued to present challenges across the whole of Scotland. NHS Boards review of patients identified a high proportion of patients for BSC at the outset, for stent only, with rapid deterioration of fitness or comorbidities meaning they were not considered fit for oncological treatment precluding referral to oncological services. Across all three regions it has been noted that there are increasing numbers of advanced presentation, including patients that die shortly after diagnosis. Some patients also decline investigations or treatment. Regional comments suggest that these factors

make the attainment of this QPI, as it currently stands, aspirational. Consideration should be given to the denominator of this QPI at the next formal review.

Whilst the challenges outlined above are recognised, it is of note that there are patients referred for oncological treatment in every NHS Board who wait more than 6 weeks to be seen by, or offered an appointment with, an oncologist. The scale of the issue varies across Boards, indicative of inequitable access dependent on patient location. There are circumstances where small patient numbers may impact the interpretation of the data or requirement for further investigations can impact the timeline, however it is likely that a variety of factors result in significant delays. Further review of patients who had an appointment outwith the 6-week target would help elucidate existing challenges and identify the point where delays in the pathway occur, whether lack of diagnostic modalities, delays in accessing required investigations or other issues, or timeliness of referral to oncology services. Early referral to oncology will be considered as part of the pathway guidance that will be developed for patients across Scotland.

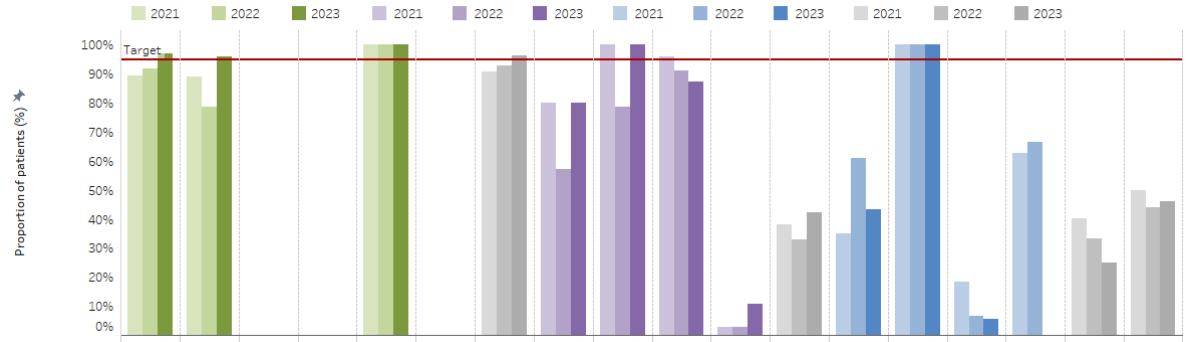
QPI 16

Key Worker

Primary liver cancer is a complex cancer to treat with various management options requiring input from multiple specialties, and as a result can require treatment across multiple health boards. Communication and continuity of care is vital for these patients to allow a co-ordinated, patient-centred approach to their care. Mechanisms should be developed to promote continuity of care which may include the nomination of a person to take on the role of a key worker. This role will include communication with regards to care plans to all involved in a patient's care, ensuring patients know who to contact, and managing transition of care.

QPI Title:	**Patients with hepatocellular cancer (HCC) should have an identified key worker to co-ordinate care across the patient pathway**
Numerator:	**Number of patients with HCC who have an identified key worker at the time of referral to the MDT**
Denominator:	**All patients with HCC**
Exclusions:	**No exclusions**
Target:	**95%**

Of the 389 patients diagnosed with Hepatocellular cancer (HCC) in Scotland in 2023, 46% had an identified keyworker at the time of referral to the MDT. There was extensive variation in performance across Scotland, both between regions and NHS Boards. The target was met by NHS D&G, NHS FV, NHS Grampian, NHS Highland, NHS Tayside and NHS FV. NCA was the only region to reach the target (96.4%), whereas SCAN (42.4%) and WoSCAN (25%) failed to reach the target, with WoSCAN deteriorating compared to 2022. The largest boards in these regions, NHS Lothian (10.7%) and NHS GGC (5.4%) were instrumental in the failure to meet this target. A few NHS Boards noted that small numbers of patients died shortly after diagnosis, before being assigned a CNS, or were referred to a larger NHS Board for treatment.



2023 Data	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NCA	Borders	D&G	Fife	Lothian	SCAN	A&A	Forth Valley	GGC	Lanarkshire	WoSCAN	Scotland
Numerator	33	25	-	-	22	0	81	4	13	28	8	53	10	28	7	0	45	179
Denominator	34	26	-	-	22	0	84	5	13	32	75	125	23	28	129	0	180	389
Performance (%)	97.1%	96.2%	-	-	100%	*	96.4%	80%	100%	87.5%	10.7%	42.4%	43.5%	100%	5.4%	*	25%	46%

There is an unmet need for Cancer Nurse Specialist (CNS) involvement in the care of HCC cancer patients. NHS Lothian have proposed to monitor this QPI going forward and NHS GGC continue to seek resource for a CNS for HCC patients. The ongoing shortage, or absence of key workers creates inequitable access and standards of care.

QPI 17

30 and 90 Day Mortality following Treatment for Colorectal Liver Metastases

Over 50% of patients with primary colorectal cancer will develop liver metastases. Liver resection has now been widely accepted as the treatment of choice for primary colorectal liver metastases (CRLM), providing the only potential curative treatment with 5-year survival rates of 40–60% reported.[1] This QPI is intended to ensure treatment is given appropriately, and the outcome reported on and reviewed.

QPI Title:	**30 and 90 day mortality following treatment for Colorectal liver metastases (CRLM) with curative intent**
Numerator:	**All patients with CRLM undergoing curative treatment (resection / ablation) who die within 30/90 days of treatment**
Denominator:	**All patients with CRLM undergoing curative treatment (resection / ablation)**
Exclusions:	**No exclusions**
Target:	**30 days <5%** **90 days <7.5%**

Across Scotland, one patient with colorectal liver metastases died within 30-days of resection, meeting the target at a national level and by all five surgical centres.

Resection		Aberdeen 2023	Dundee 2023	Inverness 2023	Edinburgh and Fife 2023	Glasgow 2023	Scotland 2023	Scotland 2022	Scotland 2021
30 day mortality	Numerator	0	0	0	0	1	1	0	1
	Denominator	11	18	2	49	28	108	93	87
Target < 5%	Performance (%)	0.0%	0.0%	0.0%	0.0%	3.6%	0.9%	0.0%	1.1%
90 day mortality	Numerator	0	0	0	0	1	1	0	2
	Denominator	11	18	2	49	28	108	93	87
Target < 7.5%	Performance (%)	0.0%	0.0%	0.0%	0.0%	3.6%	0.9%	0.0%	2.3%

One patient with colorectal liver metastases died within 90-days of ablative treatment, ensuring the target was met for both measures at a national level and by all five surgical centres.

Ablation		Aberdeen 2023	Inverness 2023	Dundee 2023	Edinburgh 2023	Glasgow 2023	Scotland 2023	Scotland 2022	Scotland 2021
30 day mortality	Numerator	0	0	0	0	0	0	0	0
	Denominator	0	0	5	32	37	74	41	30
Target < 5%	Performance (%)	*	*	0%	0%	0%	0%	0.0%	0.0%
90 day mortality	Numerator	0	0	0	0	1	1	1	1
	Denominator	0	0	5	32	37	74	41	30
Target < 7.5%	Performance (%)	*	*	0%	0%	2.7%	1.4%	2.4%	3.3%

Next Steps

Progress against these plans will be monitored and any service or clinical issue considered not to have been adequately addressed will be escalated. Progress will be reported annually by NMCN Clinical Lead and nationally on a three-yearly basis to Healthcare Improvement Scotland as part of the governance processes set out in CEL 06 (2012).

Acknowledgement

This report has been prepared using clinical audit data provided by each of the fourteen NHS Boards in Scotland, with the exception of NHS Lanarkshire. Please see the statement provided.

We would like to thank colleagues in the Clinical Effectiveness departments throughout Scotland for gathering, submitting and verifying these data. We would also like to thank the clinicians, nurses and others involved in the management of HPB cancer for their contribution to the clinical audit process.

Appendix 1

Abbreviations

AA	NHS Ayrshire & Arran	NCQSG	National Cancer Quality Steering Group
ARI	Aberdeen Royal Infirmary	NHSBT	NHS Blood and Transplant
BWoSCC	Beatson West of Scotland Cancer Centre	NMCN	National Managed Clinical Network
CEL(-06)	Chief Executive Letter (-06)	NCA	North Cancer Alliance
CT	Computerised tomography	PHS	Public Health Scotland
D&G	NHS Dumfries & Galloway	QEUH	Queen Elizabeth University Hospital
eCASE	Electronic Cancer Audit Support Environment	QPI(s)	Quality Performance Indicators
FV	NHS Forth Valley	RCAG(s)	Regional Cancer Advisory Group(s)
GGC	NHS Greater Glasgow and Clyde	RIE	Royal Infirmary Edinburgh
GGH	Gartnavel General Hospital	SCN-SG	SCN-SG
GRI	Glasgow Royal Infirmary	SACT	Systemic Anti-Cancer Therapy
HCC	Hepatocellular Carcinoma	SCAN	South-East Scotland Cancer Network
HPB	HepatoPancreatoBiliary	SHPBN	Scottish Hepatopancreatobiliary Network
LAN	NHS Lanarkshire	SLTU	Scottish Liver Transplant Unit
MDT	Multidisciplinary Team	TACE	Trans-arterial chemoembolisation
M&M	Morbidity and Mortality	TNM	Tumour, Nodes, Metastases (staging system)
MRI	Magnetic Resonance Imaging	WGH	Western General Hospital
		WoSCAN	West of Scotland Cancer Network

Appendix 2

Meta Data

Report Title	Cancer Audit Report: HepatoPancreatoBiliary Quality Performance Indicators
Time Period	Patients diagnosed between 01 January 2022 and 31 December 2023
Data Source	Electronic Cancer Audit Support Environment (eCASE). A secure centralised web-based database which holds cancer audit information in Scotland
Data extraction date	07 August 2024
Methodology	Analysis was performed centrally by the NSS Information Management Service (nss.imsrequests@nhs.scot). The timescales agreed took into account the patient pathway to ensure that a complete treatment record was available for the majority of patients. Initial results were provided to Boards to check for inaccuracies, inconsistencies or obvious gaps and a subsequent download taken upon which final analysis was carried out. The final data analysis was disseminated for NHS Board verification in line with the regional audit governance process to ensure that the data was an accurate representation of service in each area. Please see info graphic in Appendix 3 for a more detailed look at the reporting process.
Data Quality	Audit data completeness can be assessed by estimating the proportion of expected patients that have been identified through audit compared to the number reported by the National Cancer Registry (provided by PHS). This is known as case ascertainment. Figures should only be used as a guide as it is not possible to compare the same cohort from each data source. Note that a 5-year average is taken for cancer registry cases to take account of annual fluctuations in incidence within regions.

	NCA	SCAN	WoSCAN	Scotland
Cases from audit	416	501	600	1517
Cases from PHS (2018-2022)*	439	513	849	1801
Case ascertainment	94.8%	97.7%	70.7%	84.2%

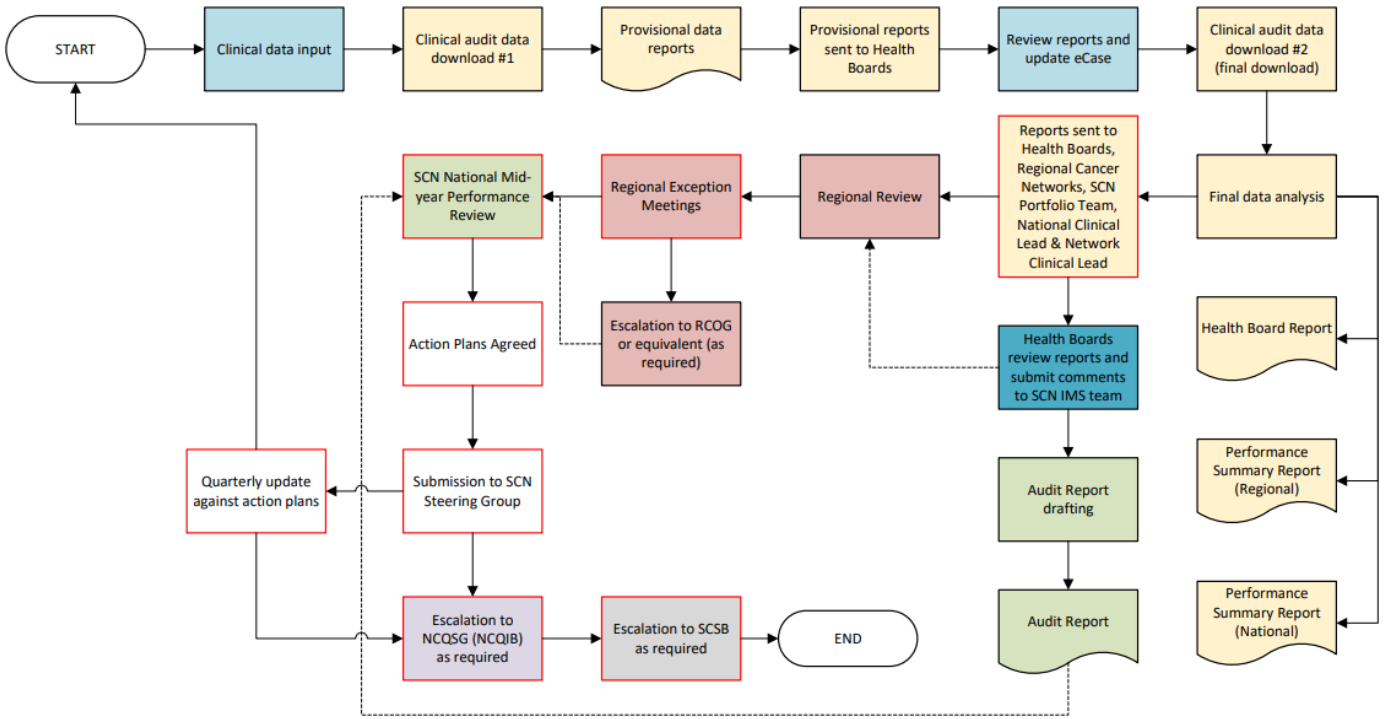
Appendix 3

QPI Reporting Process

In scope tumour types: Mesothelioma, Brain & Central Nervous System (CNS), HPB, Sarcoma (& Thyroid once QPIs defined)
Out of scope: all other tumour types.
Process assumes QPIs have been defined and is separate to the QPI development and/or three yearly review processes.

Key for lead responsibility

- Health Board Auditors
- NSD IMS Team
- Health Board Clinical Lead / Medical Director
- SCN Portfolio Team
- Regional Structures
- SCN Steering Group
- National Cancer Quality Steering Group (National Cancer Quality Improvement Board)



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