Clinical Commissioning Policy Statement
Stereotactic ablative body radiotherapy for patients with locally advanced, inoperable, non-metastatic pancreatic carcinoma (adults) URN (2011) [210901P]

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Commissioning position

Summary

Stereotactic ablative body radiotherapy (SABR) is recommended to be available as a treatment option through routine commissioning for adults with locally advanced, inoperable, non-metastatic pancreatic carcinoma (LANPC) within the criteria set out in this document.

Information about stereotactic ablative body radiotherapy

SABR is a highly targeted form of radiotherapy which uses multiple radiation beams, given from different angles around the body at the same time. The treatment is delivered in a fewer number of treatments (hypofractionation) than conventional radiotherapy. There are usually between one, three, five or eight treatments (or fractions). The aim of treatment with SABR is to ensure that the tumour receives a high dose of radiation whilst the tissues close to the tumour receive a lower dose of radiation sparing the surrounding healthy normal tissues and reducing the risk of side effects.

Committee discussion

Panel considered clinical effectiveness could be observed from the evidence base presented within the policy and recommended it progress as a routine commissioning proposition.

See the committee papers (link) for full details of the evidence.

The condition

Pancreatic cancer is a type of cancer that starts in the pancreas, an organ near the stomach and is relatively rare. Exocrine tumours start in the exocrine cells, where enzymes that help to digest food are made. Ninety-six out of a hundred (96%) pancreatic cancers are exocrine tumours. The most common type of pancreatic cancer, pancreatic ductal adenocarcinoma (PDAC), is an exocrine tumour. There are around 8,300 people diagnosed with pancreatic cancer each year in England. Around 30% of PDAC present as locally advanced, inoperable cancer which has not spread to other parts of the body (known as LANPC). Around 75% of patients with LANPC are fit enough to receive active treatment. Around 65% of patients that receive treatment for LANPC have disease that remains localised following chemotherapy (Hudson et al 2010). Therefore, it is estimated that around 700 eligible patients per year may choose SABR as an alternative to chemoradiotherapy and will meet the criteria for the intervention described in this policy statement.

Locally advanced, inoperable, non-metastatic pancreatic carcinoma (LANPC)

Patients with pancreatic cancer normally present as an emergency or via a hospital referral from the GP because of symptoms. Common symptoms include jaundice due to blockage of bile ducts, severe upper abdominal or back pain, loss of appetite and weight loss. As part of the diagnostic process, patients have a computed tomography (CT) scan as one of the first investigations. Endoscopic retrograde cholangio-pancreatography (ERCP) and biliary brushings with or without the insertion of a biliary stent is usually performed in patients with jaundice, where the CT scan indicates likely pancreatic cancer and immediate surgery is not contemplated. In patients without jaundice or where ERCP brushings are not conclusive, an endoscopic ultrasound-guided or CT-guided biopsy is required to confirm histological diagnosis.

Current treatments

Patients with localised, non-metastatic pancreatic cancer will be discussed at a specialist hepatopancreaticobiliary (HPB) multi-disciplinary team (MDT) meeting, where a decision is made whether the disease is:

- Resectable (where surgery is offered)
- Borderline resectable (where patients either go straight to surgery or receive pre-operative chemotherapy or chemo-radiotherapy prior to surgery)
- LANPC (the tumour is localised, but unlikely to ever be resectable, therefore the recommended treatment is chemotherapy with or without consolidation radiotherapy).

For patients with localised disease on CT who are well enough for treatment, a positron emission tomography (PET)-CT scan is recommended to complete staging.
Patients with LANPC will receive chemotherapy (either combination regimen or gemcitabine monotherapy) for 3 to 6 months depending on the chemotherapy regimen.

If the disease remains stable following this treatment, patients may be offered chemoradiotherapy, which involves 28-30 daily radiotherapy treatments alongside daily oral chemotherapy (capecitabine). Following completion of all treatment, patients are generally followed up at 3-monthly intervals with clinical assessment, blood tests and imaging and chemotherapy may be recommenced when the cancer progresses. The average life expectancy of patients who have completed the full course of treatment is 15-18 months from diagnosis.

About the new treatment

The clinical commissioning policy statement recommends the use of stereotactic ablative body radiotherapy (SABR) as a treatment option for adults with locally advanced, inoperable, non-metastatic pancreatic carcinoma (LANPC) where the disease remains localised following ≥3 months of systemic chemotherapy.

The use of SABR as an alternative treatment option to chemoradiotherapy means that patients will require fewer daily hospital visits for their radiotherapy and, as concurrent daily oral chemotherapy is not required, are also spared the side effects of the chemotherapy.

Evidence summary

Narrative summary of papers presented for review

Three papers were presented for independent review. Paper 1 is an international systematic review and meta-analysis indirectly comparing the effectiveness of SABR (nine studies (n=277)) to conventionally fractionated radiation therapy (CFRT) with concurrent chemotherapy (11 studies (n=870)) in patients with locally advanced pancreatic cancer. One of the included

studies which assessed CFRT was from the UK. Paper 2 is a multi-centre phase II uncontrolled trial of sequential folfirinox and SABR in 50 patients with locally advanced pancreatic cancer treated at four hospitals in the Netherlands. Paper 3 is a systematic review and meta-analysis of 1,009 patients with locally advanced pancreatic cancer reported in 19 non-comparative studies assessing SABR (study countries not stated).

Paper 1: Tchelebi et al 2020. Conventionally fractionated radiation therapy versus stereotactic body radiation therapy for locally advanced pancreatic cancer (CRiSP): an international systematic review and meta-analysis

This paper reports a systematic review and meta-analysis that indirectly compared the efficacy and safety of SABR to CFRT with concurrent chemotherapy in patients diagnosed with locally advanced N0-1 M0[1] pancreatic cancer. The review included studies published between 2000 and 2018 that assessed either the effectiveness of SABR or CFRT with either no control group or another definitive chemotherapy or radiation therapy arm. For SABR, studies could be phase 1/2 studies or retrospective studies with SABR ≥5 Gray (Gy)/fraction in ≤5 fractions with neoadjuvant and/or adjuvant chemotherapy prescribed per study protocol specification. For CFRT, studies could be single or multi-arm phase 2/3 prospective studies with CFRT of 1.8to 2.0 Gy/fraction with chemotherapy per study protocol. Studies with mixed populations of both locally advanced and borderline resectable patients were excluded, as were studies with previously treated patients.

A total of 20 studies reporting 1,147 patients were included comprising nine studies (n=277) assessing SABR and 11 studies (n=870) assessing CFRT. None of the included studies directly compared SABR and CFRT. The studies were from the United States (11), France (2), Japan (2), the UK (1), Denmark (1), Israel (1), Taiwan (1) and China (1). The most common SABR regimen was 30 Gy in five fractions (range 24 to 45 Gy; 1 to 5 fractions) and “most patients in the SABR studies received neoadjuvant chemotherapy”. No SABR patients received concurrent chemotherapy. The majority of CFRT studies delivered 50.4 Gy in 28 daily fractions (range 50.4 to 60 Gy; 28 to 33 fractions). All CFRT patients had concurrent chemotherapy and “most participants in the CFRT studies received adjuvant chemotherapy”. Median age in the included studies ranged from 59 to 69 years. Median follow-up was not reported for eight studies. For the remaining 12 studies, median follow-up ranged from 6.0 to 55.2 months. Outcomes were reported as separate pooled effect sizes for SABR and CFRT.

Paper 2: Suker et al 2019. Efficacy and feasibility of stereotactic radiotherapy after folfirinox in patients with locally advanced pancreatic cancer (LAPC-1 trial)

This paper reports a multi-centre phase II trial of sequential folfirinox (chemotherapy) and SABR in 50 consecutive patients with biopsy-proven locally advanced pancreatic cancer treated at four hospitals in the Netherlands between 2014 and 2017 (the study’s intention-to-treat population). Inclusion criteria included World Health Organisation performance status [2] ≤1, ASA classification ≤1, no evidence of metastatic disease, largest diameter tumour of ≤7cm and normal renal, bone marrow and liver function. Exclusion criteria included prior abdominal radiotherapy, lymph node metastasis outside the radiation field, tumour ingrowth into stomach, other invasive malignancies diagnosed within three years, pregnancy or breastfeeding and serious concomitant disorders. No statement was made regarding the inclusion or exclusion of borderline resectable patients.

Patients (n=50) received folfirinox once every two weeks for up to eight cycles with a median of eight cycles (interquartile range (IQR) 4 to 8). Patients in whom no disease progression was observed after the completion of folfirinox (n=39) received SABR at 40 Gy in 8 Gy daily

[1] N0 indicates no cancer cells in the nearby lymph nodes, N1 indicates 1 to 3 lymph nodes that contain cancer cells. M0 indicates no metastasis

[2] These perf ormance status and classification levels indicate that patients are able to carry out normal activities. ‘ASA’ not further defined

fractions. The median age of patients (n=50) was 63 years (IQR 53 to 68). The median follow-up period was 29 months (95% confidence interval (CI) 23 to 36).

Paper 3: Petrelli et al 2017. Stereotactic body radiation therapy for locally advanced pancreatic cancer: a systematic review and pooled analysis of 19 trials

This paper reports a systematic review and meta-analysis on the efficacy and safety of SABR in patients with locally advanced pancreatic cancer with a confirmed adenocarcinoma histologic type (unresectable or borderline resectable disease). The authors included clinical trials and prospective or retrospective case series with ≥10 patients with pancreatic cancer. The study search dates were not reported. The included studies were published between 2005 and 2015. Studies could include SABR with or without chemotherapy (concurrent, and/or before SABR, and/or after SABR). Phase I trials, dosimetric series or studies of SABR used as a boost for external beam radiotherapy were excluded.

A total of 19 studies reporting 1,009 patients were included. This comprised 748 patients with unresectable locally advanced pancreatic cancer or locally recurrent pancreatic cancer, 27 with distant metastasis, 209 with borderline resectable pancreatic cancer and 25 medically inoperable patients. The SABR doses and fractions delivered ranged from 18 to 50 Gy and one to eight fractions (median not reported). The paper stated that induction or neoadjuvant chemotherapy was given to 19% to 100% of treated patients in the included studies and chemotherapy after SABR was given to 0% to 100% of patients. Chemotherapy was given concurrently with SABR to most patients in two studies. The median follow-up period, when reported, ranged from six to 21 months. The median age of patients and the country of the included studies were not stated.

Effectiveness

Overall survival

Tchelebi et al 2020 reported a statistically significant benefit for SABR (7 studies, n=239) compared to CFRT (11 studies [3], n=870) for two-year overall survival (not further defined) (random effects estimates: SABR 26.9% (95%CI 20.6 to 33.6, I^2=23%); CFRT 13.7% (95%CI 8.9 to 19.3, I^2=77%); SABR vs CFRT no estimate reported (p=0.004)). There was no statistically significant difference between SABR (9 studies, n=277) and CFRT (11 studies[3], n=870) for one-year overall survival (not further defined) (random effects estimates: SABR 53.7% (95%CI 39.3 to 67.9, I^2=83%); CFRT 49.3% (95%CI 39.3 to 59.4, I^2=88%); SABR vs CFRT no estimate reported (p=0.63)). In sensitivity analysis, excluding three SABR studies that were outliers in terms of dose/fractionation, there was a statistically significant difference favouring SABR for two-year overall survival and no statistically significant difference at one-year.

Suker et al 2019 reported a one-year overall survival [4] rate of 64% (95%CI 50 to 76) in the intention-to treat population (n=50) with a median overall survival of 15 months (95%CI 11 to 18). Overall survival was also reported for subgroups of patients:

- One-year overall survival rate for patients who had no disease progression after the completion of folfirinox and therefore received SABR (n=39): 79% (95%CI 65 to 89).
- Median overall survival for patients who received SABR (n=39) vs patients who did not receive SABR (n=11): 17 months (95%CI 14 to 21) vs 7 months (95%CI 6 to 8), p<0.001.
- Median overall survival after starting SABR (n=39): 10 months (95%CI 7 to 12)

[3] 12 results were pooled as one study included data for CFRT f rom 2 study arms
[4] Overall survival was calculated from the start of folfirinox to the date of death

- Overall survival for patients who received curative resection following SABR (n=6): one-year overall survival 83% (95%CI 44 to 97); median overall survival 23 months (95%CI 13 to 34).

Petrelli et al 2017 reported a pooled one-year overall survival rate [5] of 51.6% (95%CI 41.4 to 61.7) from 13 studies (n=668). Heterogeneity between the studies was described as 'substantial', and number of fractions was reported to explain 82.3% of the between-trial variance in treatment effect. The authors reported that the exclusion of three studies that included patients with recurrent or metastatic disease (5% of overall population) did not change the median or one-year overall survival results (no further details reported). The pooled median overall survival from 18 studies (n not stated) was 17 months (range 5.7 to 47). The pooled median two-year overall survival rate from five studies (n not stated) was 18% (range 0 to 47).

Progression-free survival

Suker et al 2019 reported a one-year progression-free survival [6] rate of 34% (95%CI 22 to 48) in the intention-to treat population (n=50) with a median progression-free survival of nine months (95%CI 8 to 10). Median locoregional progression-free survival was 17 months (95%CI 11 to 24) for all patients (n=50), 20 months (95%CI 14 to 28) for patients who received SABR (n=39) and 3 months (95%CI 2 to 4) for patients who did not receive SABR (n=11) (for SABR vs no SABR p<0.0001). Median distant progression-free survival was 11 months (95%CI 10 to 12) for all patients (n=50), 11 months (95%CI 9 to 13) for patients who received SABR (n=39) and 3 months (95%CI 2 to 4) for patients who did not receive SABR (n=11) (for SABR vs no SABR p<0.0001) (median follow-up 29 months).

Petrelli et al 2017 reported that median progression-free survival[5] ranged from 4.8 to 27 months in 11 studies (n not stated).

Disease control

Suker et al 2019 reported that after folfirinox and SABR treatment, four of 39 patients (10%) showed local progression, 19 (49%) distant progression and four (10%) both local and distant progression (median follow-up 29 months, local and distant progression not further defined).

Petrelli et al 2017 reported a pooled locoregional control rate[5] of 72.3% (95%CI 58.5 to 79, I^2=89%) at one year from 13 studies (n=889). The authors reported that total SABR dose delivered and higher number of fractions were statistically significantly associated with one-year locoregional control in multivariate analysis (p=0.03 and p=0.019 respectively).

Overall response rate

Petrelli et al 2017 reported that overall response rate (not further defined) ranged from 25% to 70% in the three (of 19) included studies that reported this (n not stated, timeframe not stated).

Surgery following SABR

Suker et al 2019 reported that six (of 39) patients underwent potentially curative resection after folfirinox and SABR treatment (timeframe not stated).

Petrelli et al 2017 reported a resection surgery rate ranging from 0% to 100% in the 14 (of 19) included studies that reported this (n not stated). In the four studies reporting resection surgery according to (pre-SABR) operability, unresectable locally advanced pancreatic cancer was

[5] The review authors stated that 6 studies calculated outcomes from the diagnosis of pancreatic cancer and the remainder f rom the start of radiotherapy, chemotherapy or SABR

[6] Progression-free survival was calculated from the start of folfirinox to the date of progression or death

resected in 0% to 20% of cases and borderline resectable pancreatic cancer in 50% to 56% of cases (n not stated).

Safety

Toxicity

Tchelebi et al 2020 reported a statistically significant benefit for SABR (9 studies, n=277) compared to CFRT (7 studies, n=409) for acute grade 3/4 (severe/life threatening) toxicity [7] (random effects estimates: SABR 5.6% (95%CI 0.0 to 20, I^2=93%); CFRT 37.7% (95%CI 24.0 to 52.5, I^2=89%); SABR vs CFRT no estimate reported (p=0.013)). There was no statistically significant difference between SABR (9 studies, n=277) and CFRT (6 studies, n=329) for late grade 3/4 toxicity [8] (random effects estimates: SABR 9.0% (95%CI 3.3 to 17.1, I^2=75%); CFRT 10.1% (95%CI 1.8 to 23.8, I^2=91%); SABR vs CFRT no estimate reported (p=0.85)). In sensitivity analysis, excluding three SABR studies that were outliers in terms of dose/fractionation, there was a statistically significant difference favouring SABR for acute grade 3/4 toxicity and no statistically significant difference for late grade 3/4 toxicity.

Suker et al 2019 reported grade 3 (severe) to 5 (death) adverse events in four of 39 patients who received SABR, occurring within three months after completing SABR. One patient had grade 3 vomiting, one patient had grade 4 gastro-intestinal bleeding and two patients had grade 5 gastro-intestinal bleeding. Suker et al 2019 also reported 30 grade 3 or 4 adverse events during folfirinox treatment (n=50) prior to SABR.

Petrelli et al 2017 reported that the rates of acute severe toxicity for the 19 included studies (n=1,009) ranged from 0% to 36%, with only three studies detecting grade 3/4 (severe/life threatening) gastrointestinal toxicity rates of >10%. The proportion of chronic (late) grade 3/4 events ranged from 9% to 11%, with six studies reporting a toxicity rate of 0%. No definition or timeframe was provided for acute and chronic toxicity.

Implementation

Criteria

All patients with pancreatic cancer should have their care managed by a variety of different specialists working together as part of a specialist HPB MDT which is responsible for radiotherapy and chemoradiotherapy case selection and should take into consideration patient comorbidities, potential adverse events and likely outcomes of treatment.

Inclusion criteria

Patients should meet all the following inclusion criteria:

- Over 18 years;
- Have a diagnosis of non-metastatic LANPC following a specialist HPB MDT [9] and are unsuitable for surgery;
- Histology or cytology confirming adenocarcinoma; OR, if no tissue diagnosis, only where this has been agreed by the HPB MDT as appropriate i.e. radiology and clinical presentation strongly support a diagnosis of malignancy and repeated attempts at obtaining tissue have been unsuccessful;
- Have received at least 3 months of systemic chemotherapy and the disease has remained localised, OR, Patients where systemic therapy has had to be terminated early

[7] The authors stated that the included studies most commonly defined acute toxicity as occurring within 3 months of completion of radiation

[8] The authors stated that the included studies most commonly defined late toxicity as occurring from 3 months after completion of radiation

[9] Fluorodeoxyglucose (FDG) positron emission tomography (PET) CT is strongly recommended in the staging of LANPC to exclude metastatic disease (as per NICE NG85)

due to chemotherapy toxicity but where performance status remains ≤ 2 following HPB MDT discussion;

- Locoregional disease where the primary tumour +/- involved nodes are encompassable in a radiation volume;
- Adequate pancreatobiliary drainage (patent stent where present and bilirubin less than 1.5 times the upper limit of normal);
- Patients are suitable for pancreas SABR as determined by SABR and / or specialist HPB MDT;
- WHO performance status ≤2.

Exclusion criteria

Treatment with SABR is unsuitable for people who:

- Are not considered candidates for chemotherapy, in whom radiotherapy may be offered up front primarily for symptom management;
- Have received prior upper abdominal radiotherapy;
- Have a tumour directly invading the gastrointestinal tract;
- Have evidence of metastatic disease.

Starting criteria

Patients that meet all of the inclusion criteria and do not meet any of the exclusion criteria can be considered for treatment with SABR as an alternative to chemo-radiotherapy.

The radiotherapy should not start until at least two weeks after the last dose of systemic chemotherapy and concurrent chemotherapy should not be given.

Patient pathway

The Service Specification for External Beam Radiotherapy Services (NHS England Reference: 170091S) describes the detail of the care pathways for this service. Radiotherapy is part of an overall cancer management and treatment pathway. Decisions on the overall treatment plan should relate back to a specialist HPB MDT discussion and decision. Patients suitable for radiotherapy are referred to a clinical oncologist for assessment and full explanation of the advantages and side effects of treatment with adequate time for decision making. The Clinical Oncologist will then arrange treatment planning and delivery of radiation fractions as appropriate. Each fraction of radiation is delivered on one visit, usually on an outpatient basis.

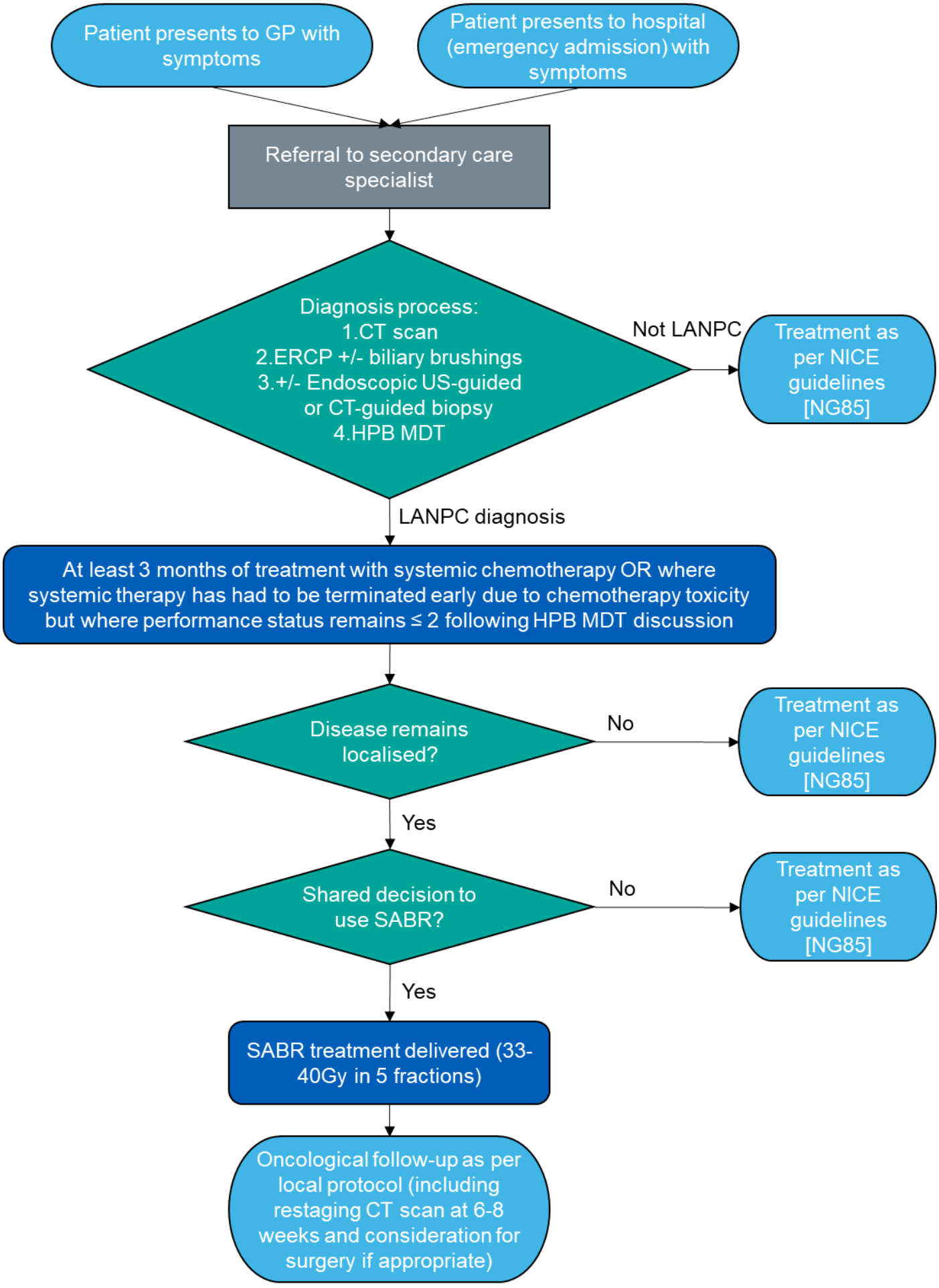
A dose range of 33-40Gy in five fractions should be used over one to two weeks. This dose range is based on the published data which demonstrates efficacy of these doses. There is the suggestion of a dose response (Krishnan et al) and therefore it is desirable to give a dose at the higher end of this range, if this can be achieved safely. However, it is recognised that at an individual patient level, the ability to deliver doses at the higher end of this range will depend on the proximity of the tumour to normal tissues and the SABR delivery technique available at the treating radiotherapy centre.

In addition, all providers of treatment with SABR must:

- Ensure all patients treated are subject to an MDT approach to patient selection and treatment including discussion at a specialist HPB MDT and SABR planning group;
- Have an adequate technical multi-professional radiotherapy SABR team present and able to deliver SABR radiotherapy; and
- Have minimum of two subspecialist clinical oncologists with experience in treating SABR patients.

Patients that receive SABR for LANPC should have oncological follow-up as per their organisation's local protocol.

It is recommended that patients that receive SABR should have a restaging CT scan at 6-8 weeks post treatment and be considered for surgery if down staged and considered appropriate at HPB MDT discussion.


Patient presents to GP with symptoms
Patient presents to hospital (emergency admission) with symptoms
Referral to secondary care specialist
Diagnosis process:
1.CT scan
2.ERCP +/- biliary brushings
3.+/- Endoscopic US-guided or CT-guided biopsy
4.HPB MDT
Not LANPC
Treatment as per NICE guidelines [NG85]
LANPC diagnosis
At least 3 months of treatment with systemic chemotherapy OR where systemic therapy has had to be terminated early due to chemotherapy toxicity but where performance status remains ≤ 2 following HPB MDT discussion
Disease remains localised?
No
Treatment as per NICE guidelines [NG85]
Yes
Shared decision to use SABR?
No
Treatment as per NICE guidelines [NG85]
Yes
SABR treatment delivered (33-40Gy in 5 fractions)
Oncological follow-up as per local protocol (including restaging CT scan at 6-8 weeks and consideration for surgery if appropriate)

Governance arrangements

The Service Specification for External Beam Radiotherapy (NHS England Reference: 170091S) describes the governance arrangements for this service. It is imperative that the radiotherapy service is fully compliant with this Service Specification and in particular, with the Ionising Radiation (Medical Exposure) Regulations (IR(ME)R) 2017.

Clinical governance systems and policies should be in place and integrated into the organisational governance with clear lines of accountability and responsibility for all clinical governance functions. Providers should produce annual clinical governance reports as part of the NHS clinical governance reporting system. Providers must have an externally accredited quality management system (such as BSI) in place.

All providers must be compliant with Radiotherapy Quality Assurance (RTQA) for contouring and outlining. A national approach to regular peer review of patient eligibility and treatment plans will be required.

The SABR Consortium Guidelines 2019 provide detailed information on each indication contained within this policy and can be found online here.

Effective from

This policy will be in effect from the date of publication.

Recommendations for data collection

Radiotherapy providers must submit their activity to the national Radiotherapy Dataset (RTDS) on a monthly basis. Providers will collect the audit and clinical outcome data through their own collection process for all SABR. Providers should participate in national audits.

Radiotherapy services are subject to regular self-assessment by the national Specialised Commissioning Quality Surveillance. The quality system and its treatment protocols will be subject to regular clinical management and audit as part of the development of radiotherapy networks in England.

Mechanism for funding

Radiotherapy planning and delivery is reimbursed through national prices included within the National Tariff Payment System.

Policy review date

This is a policy statement, which means that the full process of policy production has been abridged: a full independent evidence review has not been conducted; and public consultation has not been undertaken. If a review is needed due to a new evidence base then a new Preliminary Policy Proposal needs to be submitted by contacting england.CET@nhs.net.

Links and updates to other policies

This document should be used alongside the NICE Guideline [NG85] Pancreatic cancer in adults: diagnosis and management (2018).

Equality statement

Promoting equality and addressing health inequalities are at the heart of NHS England's values. Throughout the development of the policies and processes cited in this document, we have:

- Given due regard to the need to eliminate discrimination, harassment and victimisation, to advance equality of opportunity, and to foster good relations between people who share a relevant protected characteristic (as cited under the Equality Act 2010) and those who do not share it; and
- Given regard to the need to reduce inequalities between patients in access to and outcomes from healthcare services and to ensure services are provided in an integrated way where this might reduce health inequalities

Definitions

Chemotherapy	The use of a drug to kill or damage cells, most commonly used in cancer treatment.
Fraction	The term that describes how the full dose of radiation is divided into a number of small doses (called fractions). The fractions are given as a series of treatment sessions which make up a radiotherapy course.
Hypofractionation	Describes a treatment regimen that delivers high doses of radiation using a shorter number of treatments as compared to conventional treatment regimens.
Metastatic cancer/metastases	Metastatic cancer is a cancer that has spread from the part of the body where it started (the primary site) to other parts of the body. Metastases is the plural form of metastasis and indicates that the cancer spread to more than one other site in the body.
Overall survival (OS)	The length of time from either diagnosis or start of treatment that the patient is still alive.
Performance status	A recognised system developed by the World Health Organisation and other bodies to describe the general health and daily activity of patients.
Progression-free survival (PFS)	The length of time from start of treatment to when the disease gets worse or death.
Radiotherapy	The safe use of ionising radiation to destroy cancer cells with the aim of cure or effective palliation.
Stereotactic ablative radiotherapy (SABR)	Refers to the irradiation of a lesion and is associated with the use of high radiation dose delivered in a small number of fractions. The technique requires specialist positioning of equipment and imaging to confirm correct targeting. It allows sparing of the healthy normal tissues.
Systemic treatment	Treatment, usually involving chemotherapy or hormone treatment, which aims to treat the whole body.

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