NHS England

Interim Clinical Commissioning Policy Statement: Selective Internal Radiotherapy (SIRT)

June 2013

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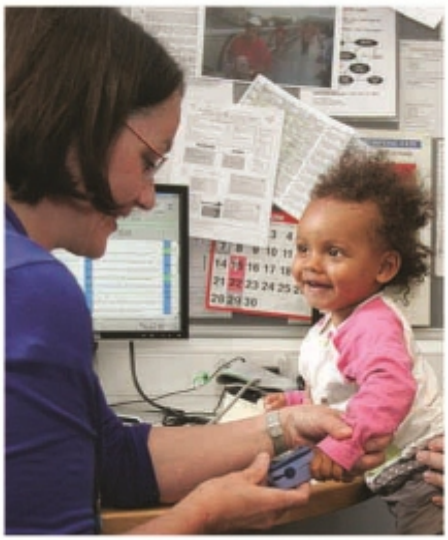

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Document Purpose	
Document Name	Interim Clinical Commissioning Policy - Selective Internal Radiotherapy (SIRT)
Author	Radiotherapy, Hepatobiliary and Interventional Radiology Clinical Reference Groups
Publication Date	08 July 2013
Target Audience	CCG Clinical Leaders, Foundation Trust CEs , Medical Directors, Directors of PH, NHS England Regional Directors, NHS England Area Directors, Directors of Finance, NHS Trust CEs
Additional Circulation List	Communications Leads
Description	Selective Internal Radiation Therapy (SIRT) or radio-embolisation is a form of radiotherapy that has been developed for the treatment of unresectable primary and secondary liver cancer. This clinical policy describes the interim commissioning position and will be reviewed as new evidence becomes available.
Cross Reference	
Superseded Docs (if applicable)	
Action Required	
Timing / Deadlines (if applicable)	
Contact Details for further information	NHS England Specialised Commissioning Team Floor 5 Skipton House 80 London Road SE1 6LH

Document Status

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NHS England Clinical Commissioning Policy Statement:

Selective Internal Radiotherapy (SIRT)

First published: June 2013

Prepared by NHS England Clinical Reference Groups for Radiotherapy, Hepatobiliary and Pancreas, and Interventional Radiology

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Published by NHS England, in electronic format only.

Treatment:	Selective Internal Radiotherapy (SIRT)
For:	a. Colorectal liver metastases b. Hepatocellular carcinoma (HCC) c. Neuroendocrine tumour liver metastases (NETLM) d. Intrahepatic cholangiocarcinoma e. Liver metastases of other less common radiotherapy sensitive tumours
Background:	Selective Internal Radiation Therapy (SIRT) or radio-embolisation is a form of radiotherapy that has been developed for the treatment of unresectable primary and secondary liver cancer. It is a 'medical device' (therefore not appropriate for inclusion in the cancer drugs fund) and is a form of brachytherapy by which radioactive beads (Yttrium-90 microspheres) are infused into the arterial blood supply of the liver. The technique involves an interventional radiologist inserting a catheter into the hepatic artery via the groin. The patient undergoes two procedures. The first "work-up" procedure involves assessment of the anatomy and preparing the liver blood vessel anatomy for the second procedure, usually done one to two weeks later. The spheres are inserted at the second procedure. The SIRT procedure enables radiation to be targeted directly into the liver tumours by using the tumour's own blood supply. Healthy liver tissue derives around 80% of its blood supply from the portal vein (the vein that delivers blood to the liver from the gut), with only 20% of the blood supply being derived from the hepatic artery. In contrast, liver tumours derive up to 90% of their blood supply from the hepatic artery, since they need a profuse supply of highly oxygenated blood to grow. The hepatic artery therefore provides an ideal channel to deliver targeted treatment to the tumour(s) rather than the good liver. The radioactive microspheres used in SIRT are small enough to become lodged in the blood vessels within the growing tumour(s) where they emit a high dose of radiation, but are too large to pass through the capillaries and into the venous system meaning there is very little spill over into the systemic blood stream. As SIRT is targeted directly at the liver tumours via the hepatic artery, exposure to the remaining

	healthy liver tissue is minimised. SIRT contains the radioactive element Yttrium-90, which delivers beta radiation over a relatively short distance: an average of 2.4 mm in human tissue and a maximum of 11 mm. This means there is no significant risk to others in close proximity to the patient. Yttrium-90 has a half-life of approximately two-and-a-half days (64.1 hours), such that most of the radiation (over 97%) is delivered to the tumour(s) in the first two weeks following treatment
Commissioning position:	For consideration of SIRT in the treatment of liver tumour(s) all patients must be discussed at a specialist hepatobiliary MDT and meet the following criteria: a. Not amenable to surgery either because of technical inoperability or medical co-morbidity b. Not thought to be suitable for radiofrequency ablation or other ablative techniques c. WHO performance status 0-1 d. Liver predominant disease with no life threatening disease outside the liver (This will be defined through the Commissioning through Evaluation Process). e. Adequate liver function (i.e. bilirubin <34 µmol/L and synthesis function of liver normal) f. Less than 60% of the liver involved by tumour g. No ascites or other clinical signs of liver failure h. No life threatening malignancy outside the liver i. Life expectancy > 3 months j. Not pregnant **a. Colorectal liver metastases** • SIRT is not routinely commissioned in the treatment of colorectal liver metastases. • Eligible patients should be offered enrolment into the FOXFIRE trial (First-line therapy). • Chemo-refractory patients may be offered SIRT as part of Commissioning through Evaluation (Details to be agreed). • All eligible patients should be offered access to clinical trials where appropriate. • This commissioning policy will be reviewed in June 2014.

	b. Hepatocellular carcinoma (HCC) • SIRT is not routinely commissioned in the treatment of hepatocellular carcinoma. • Eligible patients should be offered entry into clinical trials where available and appropriate. **c. Neuroendocrine tumour liver metastases (NETLM)** • SIRT is not routinely commissioned for the treatment of neuroendocrine tumour liver metastases. **d. Intrahepatic cholangiocarcinoma** • SIRT is not routinely commissioned in the treatment of intrahepatic choloangiocarcinoma. • Chemo-refractory patients may be offered SIRT as part of Commissioning Through Evaluation (Details to be agreed). • All eligible patients should be offered access to clinical trials where appropriate. • This commissioning policy will be reviewed in June 2014. **e. Other Indications** • SIRT is not routinely commissioned in any other indications.
Effective from:	June 2013
Evidence summary:	See Appendix 1
Equality impact:	Throughout the production of this document, due regard has been given 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 in under the Equality Act 2010) and those who do not share it.
Responsible CRG:	Radiotherapy, Hepatobiliary and Pancreas, and Interventional Radiology.
Date approved by NHS England	28 May 2013

Clinical Priorities Advisory Group:	
Date approved by NHS England Direct Commissioning Committee:	
Policy review date:	This is an interim policy statement and will be reviewed as new evidence becomes available.
Version:	V1
Supersedes:	NA
Responsible officer/contact:	Jon Currington, Programme Director Specialised Cancer and Blood.
Distribution/Target audience:	

References