

BC Cancer Protocol Summary of Yttrium-90 for Transarterial Radioembolisation (TARE)

Protocol Code

GIYTT

Tumour Group

Gastrointestinal

Contact Physician

Dr. Dave Liu

Dr. Janine Davies

ELIGIBILITY:

Suitability for Yttrium-90 TARE therapy will be established via consultation with Vancouver General Hospital (VGH) or Kelowna General Hospital (KGH) Intervention Radiology, in accordance with the following eligibility criteria:

- Hepatocellular cancer with portal venous invasion
- Hepatocellular cancer with T3 tumours, potentially amenable to downstage for liver transplantation or resection
- Hepatic metastatic neuroendocrine tumours (NETs)
- Definable disease burden by imaging criteria
- Mesenteric vascular anatomy amenable to TARE

EXCLUSIONS:

- Presence of ascites or encephalopathy
- Infiltrative disease greater than 50% or Childs Pugh score greater than 8 (late B) for patients with hepatocellular carcinoma
- Extrahepatic disease for patients with hepatocellular carcinoma
- Extrahepatic disease that is life-limiting for patients with NETs
- Life expectancy less than 3 months
- Compromised hepatic function consisting of Total Bilirubin greater than 2.5 x ULN, hypoalbuminemia less than 3.0 g/dL, AST, ALT or ALP greater than 5 x ULN

TREATMENT:

Prescribing

- Written directive for prescribed dose (radioactivity) from VGH or KGH Nuclear Medicine physician in conjunction with VGH or KGH Interventional Radiology

Delivery of treatment

- Treatment must be performed in the VGH or KGH angiography suite

Call the GI Systemic Therapy physician at your regional cancer centre or the GI Systemic Therapy Chair Dr. Janine Davies at (604) 877-6000 or 1-800-670-3322 with any problems or questions regarding this treatment program.

References:

1. Sangro B, Salem R, Kennedy A, et al. Radioembolization for hepatocellular carcinoma: a review of the evidence and treatment recommendations. *Am J Clin Oncol* 2011;34(4):422-31.
2. Tsai AL, Burke CT, Kennedy AS, et al. Use of yttrium-90 microspheres in patients with advanced hepatocellular carcinoma and portal vein thrombosis. *J Vasc Interv Radiol* 2010;21(9):1377-84.
3. Iñarrairaegui M, Thurston KG, Bilbao JI, et al. Radioembolization with use of yttrium-90 resin microspheres in patients with hepatocellular carcinoma and portal vein thrombosis. *J Vasc Interv Radiol* 2010;21(8):1205-12.
4. Lewandowski RJ, Kulik LM, Riaz A, et al. A comparative analysis of transarterial downstaging for hepatocellular carcinoma: chemoembolization versus radioembolization. *Am J Transplant* 2009;9(8):1920-8.
5. Liu DM, Kennedy A, Turner D, et al. Minimally invasive techniques in management of hepatic neuroendocrine metastatic disease. *Am J Clin Oncol* 2009;32(2):200-15.
6. Kennedy AS, Dezarn WA, McNeillie P, et al. Radioembolization for unresectable neuroendocrine hepatic metastases using resin 90Y-microspheres: early results in 148 patients. *Am J Clin Oncol* 2008;31(3):271-9.
7. Rhee TK, Lewandowski RJ, Liu DM, et al. 90Y Radioembolization for metastatic neuroendocrine liver tumors: preliminary results from a multi-institutional experience. *Ann Surg* 2008;247(6):1029-35.