SORAfenib Therapy

INDICATIONS FOR USE:

INDICATION	ICD10	Regimen Code	HSE approved reimbursement status*
Treatment of hepatocellular carcinoma (HCC)	C22	00294a	N/A
Treatment of patients with advanced renal cell carcinoma (RCC) who have failed prior interferon-alpha or interleukin-2 based therapy or are considered unsuitable for such therapy	C64	00294b	N/A
Treatment of patients with progressive, locally advanced or metastatic differentiated (papillary/follicular/Hürthle cell) thyroid carcinoma, refractory to radioactive iodine	C73	00294c	N/A

* This is for post 2012 indications

TREATMENT:

The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, to consider each patients individual clinical circumstances.

SORAfenib is taken orally twice daily continuously until disease progression or unacceptable toxicity develops.

Drug	Dose	Route	Cycle
SORAfenib	400mg Twice Daily	PO	Continuous therapy
It is recommended that SORAfenib should be administered without food or with a low or moderate fat meal. If the patient intends to have a high-fat meal, SORAfenib tablets should be taken at least 1 hour before or 2 hours after the meal. The tablets should be swallowed with a glass of water. SORAfenib is commonly available as a 200mg tablet.			

ELIGIBILITY:

- Indications as above
- ECOG status 0-2
- Adequate haematological, renal and liver status

CAUTIONS:

- Patients who have, or may develop prolongation of QTc, such as:
  - patients with a congenital long QT syndrome,
  - Patients receiving concomitant medicinal products known to lead to QT prolongation,
  - and those with electrolyte disturbances such as hypokalaemia, hypocalcaemia, or hypomagnesaemia
- Patients with Child Pugh Class B and C

EXCLUSIONS:

- Hypersensitivity to SORAfenib or any of the excipients
- Uncontrolled hypertension
- Pregnancy
- Breastfeeding

PRESCRIPTIVE AUTHORITY:

The treatment plan must be initiated by a Consultant Medical Oncologist.

TESTS:

Baseline tests:

- FBC, renal and liver profile
- Blood pressure
- Thyroid function tests
- Assessment of cardiac function

Regular tests:

- Consider FBC**,** renal and liver profile at 14 days for first cycle.
- FBC, renal and liver profile, TSH and thyroid function every 28 days
- Blood pressure weekly for first month and then every 28 days
- INR tests if patient is on warfarin as clinically indicated

Disease monitoring:

Disease monitoring should be in line with the patient's treatment plan and any other test/s as directed by the supervising Consultant.

DOSE MODIFICATIONS:

- Any dose modification should be discussed with a Consultant
- Management of suspected adverse drug reactions may require temporary interruption or dose reduction of SORAfenib therapy
- **HCC and RCC:**
  - When a dose reduction is necessary, the dose of SORAfenib should be reduced to 400mg once daily
- **Differentiated thyroid carcinoma (DTC)**:
  - When a dose reduction is necessary, SORAfenib should be reduced to 600mg daily taken in divided doses (two tablets of 200mg and one tablet of 200mg twelve hours apart, i.e. 400mg AM, 200mg PM)
  - If additional dose reduction is necessary, SORAfenib may be reduced to 400mg SORAfenib daily in divided doses (two tablets of 200mg twelve hours apart, i.e. 200mg AM, 200mg PM), and if necessary further reduce to one tablet of 200mg once daily
  - After improvement of non-haematological adverse reactions, the dose of SORAfenib may be increased

Table 2: Dose modification of SORAfenib in renal and hepatic impairment

Renal Impairment		Hepatic Impairment	
CrCl (mL/min)	**Dose**	**Class**	**Dose**
>40	No dose adjustment is needed.	Child-Pugh A	No dose adjustment is needed
20-39	200mg twice daily, dose escalate based on tolerability.	Child-Pugh B	
<20 or haemodialysis	200mg once daily, dose escalate based on tolerability.	Child-Pugh C	Starting dose 200mg once daily, dose escalate based on tolerability.
Renal and hepatic dose modifications from Giraud et al 2023			

SUPPORTIVE CARE:

EMETOGENIC POTENTIAL:

- As outlined in NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting Available on the NCCP website

SORAfenib: Minimal to low (**Refer to local policy)**

For information:
Within NCIS regimens, antiemetics have been standardised by the Medical Oncologists and Haemato-oncologists and information is available in the following documents:

- NCCP Supportive Care Antiemetic Medicines for **Inclusion in NCIS** (Medical Oncology) - Available on the NCCP website
- NCCP Supportive Care Antiemetic Medicines for **Inclusion in NCIS** (Haemato-oncology) - Available on the NCCP website

PREMEDICATIONS: Not usually required

OTHER SUPPORTIVE CARE:

- Medication may be required for the management of diarrhoea **(Refer to local policy)**
- See local skin care policy for treatment and prevention of PPE

ADVERSE EFFECTS

- Please refer to the relevant Summary of Product Characteristics (SmPC) for details.

DRUG INTERACTIONS:

- Current SmPC and drug interaction databases should be consulted for information.

REFERENCES:

1. Llovet, JM, Ricci S, Mazzaferro V, et al. Sorafenib in advanced hepatocellular carcinoma. N Engl J Med 2008;359(4):378-390.
2. Miller AA, Murry DJ, Owzar K. et al. Phase I and pharmacokinetic study of sorafenib in patients with hepatic or renal dysfunction: CALGB 60301. J Clin Oncol 2009;27(11):1800-1805.
3. Cheng, AL, Kang YK, Chen Z. et al. Efficacy and safety of sorafenib in patients in the AsiaPacific region with advanced hepatocellular carcinoma: a phase III randomised, doubleblind, placebo controlled trial. Lancet Oncol 2009;10(1):25-34**.**
4. Escudier B, EisenT, Stadler WM et al. Sorafenib in advanced clear-cell renal-cell carcinoma. N Engl J Med 2007;356(2):125-134.
5. Escudier B, Eisen T, Stadler WM et al. Sorafenib for Treatment of Renal Cell Carcinoma:Final Efficacy and Safety Results of the Phase III Treatment Approaches in Renal Cancer Global Evaluation Trial. J Clin Oncol 2009;27(20):33123318.
6. Brose MS, Nutting CM et al. Sorafenib in radioactive iodine-refractory, locally advanced or metastatic differentiated thyroid cancer: a randomized, double-blind, phase 3 trial. Lancet 2014;384(9940):319-328
7. Gupta-Abramson et al. Phase II Trial of Sorafenib in Advanced Thyroid Cancer. J Clin Oncol 2008;26:4714-4719.
8. Giraud E L, Lijster B D, et al. Dose recommendations for anticancer drugs in patients with renal or hepatic impairment: an update. Available at: https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(23)00216-4/fulltext
9. NCCP Classification Document for Systemic AntiCancer Therapy (SACT) Induced Nausea and Vomiting. V6 2025. Available at: https://www.hse.ie/eng/services/list/5/cancer/profinfo/chemoprotocols/nccp-classification-document-for-systemic-anti-cancer-therapy-sact-induced-nausea-and-vomiting.pdf
10. Sorafenib (NEXAVAR®) Summary of Product Characteristics. Last updated 28/03/2025. Accessed June 2025. Available at: https://www.ema.europa.eu/en/documents/product-information/nexavar-epar-product-information_en.pdf

Version	Date	Amendment	Approved By
1	3/5/2016	Applied new NCCP regimen template	Prof Maccon Keane
2	30/06/2018	Updated with new NCCP regimen template	Prof Maccon Keane
3	27/05/2020	Reviewed. Update of dose modifications for renal and hepatic impairment, emetogenic potential and adverse events.	Prof Maccon Keane
4	27/08/2025	Reviewed. Updated -Eligibility criteria -Added caution section -Exclusion criteria - Renal and hepatic dose modifications to align with Giraud et al 2023. - Updated regimen in line with NCCP standardisation	Prof Maccon Keane

Comments and feedback welcome at oncologydrugs@cancercontrol.ie