Chemotherapy Protocol

RENAL CELL

TEMSIROLIMUS

This protocol may require funding

Regimen

- Renal Cell - Temsirolimus

Indication

- First line treatment of advanced renal cell cancer with poor prognostic features
- Performance status 0, 1

Toxicity

Drug	Adverse Effect
Temsirolimus	Hypersensitivity, hyperglycaemia, interstitial lung disease, hyperlipaemia, abnormal wound healing, intracerebral bleeding, renal failure, bowel perforation, oedema, rash, asthenia, abdominal pain, arthralgia

The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

Monitoring

Drugs

- Weekly U&Es, LFTs, FBC and blood glucose for the first six weeks of treatment. Thereafter tests may be conducted two weekly if the results and patients remain stable.
- Serum cholesterol and triglycerides prior to starting therapy and every twelve weeks thereafter.

Dose Modifications

The dose modifications listed are for haematological, liver and renal function and drug specific toxicities only. Dose adjustments may be necessary for other toxicities as well.

In principle all dose reductions due to adverse drug reactions should not be re-escalated in subsequent cycles without consultant approval. It is also a general rule for chemotherapy that if a third dose reduction is necessary treatment should be stopped.

Please discuss all dose reductions / delays with the relevant consultant before prescribing, if appropriate. The approach may be different depending on the clinical circumstances.

Haematological

Consider blood transfusion if patient symptomatic of anaemia or has a haemoglobin of less than 8g/dL.

Neutrophils (x10^9/L)	**Dose Modifications**
1 or greater	100%
less than 1	Delay until counts recover to this level. If this takes eight days or longer then reduce the dose by 5mg/week until tolerated.
Platelets (x10^9/L)	**Dose Modifications**
75 or more	100%
less than 75	Delay until counts recover to this level. If this takes eight days or longer then reduce the dose by 5mg/week until tolerated.

Hepatic Impairment

Drug	**Bilirubin µmol/L**		**AST/ ALT**		**Child Pugh Score**	**Dose**
Temsirolimus	less than 3xULN	and	ANY	and	A or B	No dose adjustment needed*
	more than 3xULN	and	ANY	or	C	10mg weekly*

* Information based on patients with a baseline platelet count of 100x10^9/L or above

Renal Impairment

Drug	**Creatinine Clearance (ml/min)**	**Dose (% of original dose)**
Temsirolimus	N/A	No dose adjustment needed

Although no dose modification is required in patients with renal impairment temsirolimus is known to induce renal failure. Renal function should be monitored closely in all patients. Discontinue temsirolimus if renal failure occurs during treatment.

Other

Dose reductions or interruptions in therapy are not necessary for those toxicities that are considered unlikely to be serious or life threatening. For example, alopecia, altered taste or nail changes.

Lung

A NCI-CTC grade 1 non infectious pneumonitis developing which is asymptomatic does not require discontinuation of therapy. Consider a dose reduction of 5mg. If this complication is NCI-CTC grade 2 interupt treatment and consider short term use of corticosteroids. Once the symptoms have resolved re-start the temsirolimus with a 5mg dose reduction. If the pneumonitis is NCI-CTC grade 3 or 4 treat appropriately and discontinue the temsirolimus.

Regimen

7 day cycle until unacceptable toxicity occurs or disease progression (24 cycles will be set in ARIA)

Drug	Dose	Days	Administration
Temsirolimus	25mg	1	Intravenous infusion in 250ml sodium chloride 0.9% over 60 minutes (may be reduced to 30 minutes if well tolerated)

Dose Information

- Temsirolimus will be rounded to the nearest 5mg

Administration Information

- If a hypersensitivity reaction, including anaphylaxis, occurs during administration despite pre-medication, the infusion must be stopped immediately and the patient observed for at least 30 minutes. At the discretion of a medical doctor the infusion may be resumed following the administration of further chlorphenamine (if not previously given) and / or ranitidine 50mg intravenous 30 minutes before re-starting administration at half the infusion rate.

- Temsirolimus must be administered in a non-PVC bag via a low adsorption administration set containing an in-line filter of between 0.2 and 5 microns.

Extravasation

- Temsirolimus – unknown

Additional Therapy

- Pre-medication

  30 minutes prior to treatment

  - chlorphenamine 10mg intravenous

- Antiemetics

  15-30 minutes prior to treatment

  - metoclopramide 10mg oral or intravenous

  As take home medication

  - metoclopramide 10mg oral three times a day for 3 days then as required

- Gastric protection with a proton pump inhibitor or a H_2 antagonist may be considered in patients considered at high risk of GI ulceration or bleed.

Coding (OPCS)

- Procurement – X70.4
- Delivery – X72.3

References
1. Bellmut J, Szczylik C, Feingold J, Strahs A et al. Temsirolimus safety profile and management of toxic effects in patients with advanced renal cell carcinoma and poor prognostic features. Ann Oncol 2008; 19 (8): 1369-1370.
2. Hudes G, Carducci M, Tomczak P et al. Temsirolimus, interferon alfa or both for advanced renal cell carcinoma. N Engl J Med 2007; 356 (22): 2271-2281.

REGIMEN SUMMARY

Temsirolimus

Day One

1. Chlorphenamine 10mg intravenous
2. Metoclopramide 10mg oral or intravenous
3. Temsirolimus 25mg intravenous infusion in 250ml sodium chloride 0.9% over 60 minutes

Take Home Medicines

4. Metoclopramide 10mg oral three times a day when required*

*The metoclopramide will only appear on day one cycle one. If further supplies are required they should be added from the support directory of Aria as necessary.

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1.1	April 2016	Header changed Metoclopramide dose changed to 10mg Bolus removed from intravenous bolus throughout text Disclaimer added	Donna Kimber Pharmacy Technician	Rebecca Wills Pharmacist
1	Jan 2013	None	Rebecca Wills Pharmacist Dr Deborah Wright Pharmacist	Dr Joanna Gale Consultant Medical Oncologist Dr Matthew Wheater Consultant Medical Oncologist

This chemotherapy protocol has been developed as part of the chemotherapy electronic prescribing project. This was and remains a collaborative project that originated from the former CSCCN. These documents have been approved on behalf of the following Trusts;

Hampshire Hospitals NHS Foundation Trust
NHS Isle of Wight
Portsmouth Hospitals NHS Trust
Salisbury Hospitals NHS Foundation Trust
University Hospital Southampton NHS Foundation Trust
Western Sussex Hospitals NHS Foundation Trust

All actions have been taken to ensure these protocols are correct. However, no responsibility can be taken for errors which occur as a result of following these guidelines.