OXALIPLATIN HYPERSENSITIVITY GUIDELINES & DESENSITISATION REGIMEN

The risk of developing an oxaliplatin hypersensitivity reaction is related to increased exposure to the drug.

Grading of Hypersensitivity Reactions (HSRs)

	Grade 1 MILD	Grade 2 MODERATE	Grade 3 SEVERE	Grade 4 Life-threatening	Grade 5
Symptoms of Allergic Reaction (any of)	Transient flushing or rash, temp < 38^{o}	Flushing; rash or urticaria; dyspnoea; asymptomatic bronchospasm; temp > 38^{o}.	Symptomatic bronchospasm; allergy-related oedema / angio-oedema; hypotension OR prolonged unresolving moderate symptoms.	Anaphylaxis	Death
	+ Back pain is a common symptom - if it presents as the only symptom, treat as Grade 1				

Grade 1 HSR to oxaliplatin:

Following a mild (Grade 1) HSR, re-challenge should be carried out as follows:

a) Patients who **recover within 30 minutes** of receiving IV hydrocortisone and IV chlorphenamine;

- the infusion may be re-started on the same day at 50% rate for 30 minutes, then increased up to 100% rate again.
- For subsequent treatment cycles, use increased oral and IV HSR prophylaxis as below, along with a standard oxaliplatin bag for infusion, starting at 50% of standard infusion rate for 30 minutes, and then increase to 100% infusion rate.

b) Patients whose **symptoms do not resolve** 30 minutes post IV hydrocortisone and IV chlorphenamine;

- re-book patient to return one week later (if < 20% dose given before HSR) and supply oral prophylaxis as below to start the day before administration.
- Also prescribe IV prophylaxis as below, along with a standard oxaliplatin bag for infusion, starting at 50% of standard infusion rate for 30 minutes, and then increase to 100% infusion rate.
- If there is any further Grade 1 – 3 reaction, then the desensitisation regimen should be considered for any further doses.

HSR Prophylaxis to be used before oxaliplatin re-challenge:

Starting 24 hours before oxaliplatin i.e. Day -1:

Cetirizine	10mg	po om x 2 doses	}
Ranitidine	150mg	po bd x 3 doses	} last dose on the morning of oxaliplatin administration
Dexamethasone	8mg	po bd x 3 doses	}

PLUS, 30 minutes before oxaliplatin:

Chlorphenamine	10mg	IV
Ranitidine	50mg	IV
Dexamethasone	8mg	IV

Grade 2 – 3 HSR to oxaliplatin : see overleaf

Grade 4 HSR to oxaliplatin: for any life-threatening Grade 4 reaction, the patient should **not** be re-challenged with oxaliplatin

Reason for Update: reviewed dosing so possible to go on Aria; reviewed duration of oral pre-meds	Approved by Consultant: Dr S Essapen
Version: 2	Approved by Lead Chemotherapy Nurse: P Deery
Supersedes: Version 1	Date: 1.4.15
Prepared by: S Taylor	Checked by: C Tucker

OXALIPLATIN DESENSITISATION REGIMEN

For patients who experienced a Grade 2 – 3 hypersensitivity reaction to oxaliplatin, the desensitisation regimen may be considered for all subsequent cycles, depending on assessment of the patient, and a detailed discussion with the patient regarding the risks and benefits.

HSR prophylaxis to be used before oxaliplatin re-challenge:

Starting 24 hours before oxaliplatin i.e. Day -1:

Cetirizine	10mg	po om x 2 doses	}
Ranitidine	150mg	po bd x 3 doses	} last dose on the morning of oxaliplatin administration
Dexamethasone	8mg	po bd x 3 doses	}

PLUS, 30 minutes before oxaliplatin:

Chlorphenamine	10mg	IV
Ranitidine	50mg	IV
Dexamethasone	8mg	IV

Oxaliplatin: calculate total oxaliplatin dose in mg, then divide dose between Bags 1 and 2 as follows:

Bag 1: Oxaliplatin **10% of total dose** (to nearest mg) in 500ml glucose 5% given over a total of 3 hours as follows:

5ml over 1 hour
then 45ml over 1 hour
then 450ml over 1 hour

Hydrocortisone 100mg IV bolus before starting Bag 2

Bag 2: Oxaliplatin **90% of total dose** (to nearest mg) in 500ml glucose 5% as follows:

40ml at 100ml/hr
then remainder at 150ml/hr

Calcium folinate should be infused concurrently with Bag 2.

Patient must be monitored at least every 15 minutes throughout, and there must be adequate nursing and medical staff available during the whole desensitisation period.
If a reaction occurs at any step, stop the infusion and administer chlorphenamine 10mg IV and hydrocortisone 100mg IV. Start appropriate monitoring and supportive care.

For any Grade 1 – 2 reaction: observe for 30 minutes:
If symptoms resolve completely after 30 minutes, re-start the infusion at 50% of the pre-reaction rate and complete the remaining steps at 50% rate also. **Follow this slower schedule for subsequent cycles.**
If symptoms do not resolve after 30 minutes, or if they recur once infusion re-started, do not re-start oxaliplatin infusion again. Consider a switch to an alternative regimen.

For any Grade 3 – 4 reaction: do not re-start oxaliplatin infusion again. Consider a switch to an alternative regimen.

References: Adapted from RMH Management Protocol for adult Hypersensitivity Reactions associated with systemic anti-cancer therapy.
Makrilia et al; Hypersensitivity Reactions Associated with Platinum Antineoplastic Agents: A Systematic Review; Metal Based Drugs 2010: 207084

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