Pixantrone

INDICATION: Multiply relapsed or refractory aggressive non-Hodgkin's B-cell lymphoma

Prior to a course of treatment

- Check cardiac function (LVEF) – MUGA or echocardiogram
- Check FBC, U&Es, LFTs
- Patients with cardiac disease or risk factors such as a baseline LVEF value of < 45% by multigated radionuclide (MUGA) scan, clinically significant cardiovascular abnormalities (equal to New York Heart Association [NYHA] grade 3 or 4), myocardial infarction within the last 6 months, severe arrhythmia, uncontrolled hypertension, uncontrolled angina, or prior cumulative doses of doxorubicin or equivalent exceeding 450 mg/m2 should receive careful risk versus benefit consideration before receiving treatment with pixantrone
- If appropriate discuss possibility of pregnancy with female patients and need for contraception with both male and female patients. Discuss (low) risk of infertility - offer semen cryopreservation to male patients
- Written consent for course

Prior to each dose

- Medical review of fitness for chemotherapy – exclude active infection, major changes in organ function
- Check FBC, U&Es, LFTs *see dose modifications*
- LVEF should be checked periodically

Pixantrone	50mg/m^2	IV infusion in 250ml 0.9% NaCl over 1 hour (Infuse using 0.2micron filter)	days 1, 8 & 15
Repeat cycle every 28 days for up to 6 cycles			

Prophylaxis for acute emesis $5HT_3$ antagonist, dexamethasone

Prophylaxis for delayed emesis Dexamethasone, metoclopramide

Other medications

Dose modifications for neutropenia (unless due to lymphoma)

Day 1:

Delay treatment until neutrophils >1	(Reduce dose if severe or prolonged neutropenia)

Days 8 & 15:

Neutrophils 0.5 – 1.0	Delay treatment until neutrophils > 1
Neutrophils <0.5	Delay treatment until neutrophils > 1 and reduce dose by 20%

Dose modification for thrombocytopenia (unless due to lymphoma)

Day 1:

Delay treatment until platelets >75	(Reduce dose if severe or prolonged neutropenia)

Days 8 & 15

Platelets 25 – 50	Delay treatment until platelets >50
Platelets <25	Delay treatment until platelets <25 and reduce dose by 20%

Dose modification for non-haematological toxicities

Any grade 3 or 4 drug-related non cardiac toxicity other than nausea or vomiting	Delay treatment until recovery to grade 1. Reduce the dose by 20%
Any grade 3 or 4 NYHA* cardiovascular toxicity or persistent LVEF** decline	Delay treatment and monitor until recovery. Consider discontinuation for persistent decline in LVEF** of ≥ 15% of baseline value.

* NYHA: New York Heart Association
** LVEF: Left Ventricular Ejection Fraction

Dose modification for renal dysfunction

Use with caution in patients with renal impairment

Modification for liver impairment

Use with caution in mild to moderate liver impairment. Do not use with severe excretory liver impairment

Patients on sodium restricted diet

Be aware that each dose contains around 1g (43mmol) of sodium

Pixantrone Toxicities

Photosensitivity (patients should observe precautions including wearing sun-protective clothing and sunscreen)

Neutropenia

Thrombocytopenia

Cardiac disorders

Nausea & vomiting

Skin discolouration

Alopecia

Urine colouration (blue)

Raised LFTs

Written by	Dr Raposa, Consultant Haematologist
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