Dacarbazine (Sarcoma)

Indication
Previously treated advanced soft tissue sarcoma. Performance status 0-2.

ICD-10 codes
C49

Regimen details

Days	Drug	Dose	Route
1	Dacarbazine	1200mg/m^2*	IV infusion

*Consider starting at 1000mg/m^2 in older patients or in those with co-morbidities.

Cycle frequency
21 days

Number of cycles
Up to 8 cycles

Administration
Dacarbazine is administered in 500-1000mL sodium chloride 0.9% over 60 minutes.
Dacarbazine is sensitive to light exposure. All reconstituted solutions should be suitably protected from light including during administration using a light resistant giving set.

Pre-medication
Antiemetics as per local policy.

Emetogenicity
This regimen has high emetic potential

Additional supportive medication
Anti-emetics as per local policy
Proton pump inhibitor whilst on dexamethasone, and additionally if required
Benzydamine mouthwash as required

Extravasation
Dacarbazine is a vesicant (Group 5)

Investigations – pre first cycle

Investigation	Validity period
FBC	14 days
U+E (including creatinine)	14 days
LFT	14 days

Investigations – pre subsequent cycles

Investigation	Validity period
FBC	96 hours
U+E (including creatinine)	7 days
LFT	7 days

Standard limits for administration to go ahead

If blood results not within range, authorisation to administer **must** be given by prescriber/ consultant

Investigation	Limit
Neutrophils	≥1.0 x 10^9/L
Platelets	≥100 x 10^9/L
Creatinine clearance	≥60 ml/min (See renal impairment section below)
Bilirubin	≤3 x ULN

Dose modifications

- **Haematological toxicity**

If neutrophils < 1.0 x 10^9/L or platelets < 100 x 10^9/L delay 1 week
If platelets < 50 x 10^9/L, neutrophils < 0.5 x 10^9/L or febrile neutropenia, delay 1 week and reduce dose for future cycles by 20%.
Consider GCSF for grade 3 or 4 neutropenia.

- **Renal impairment**

CrCl (mL/min)	Dacarbazine dose
>60 mL/min	1200mg/m^2
30-60 mL/min	1000mg/m^2
15-30 mL/min	700mg/m^2
<15 mL/min or dialysis	Not recommended

- **Hepatic impairment**

Mild to moderate hepatic impairment with no concomitant renal impairment – no dose adjustment needed. If concomitant renal impairment elimination of dacarbazine may be prolonged.
Severe: not recommended

- **Other toxicities**

Toxicity	Definition	Action/Dose adjustment
Emesis	≥ grade 3	Optimise anti-emetics. If persists despite optimal therapy consider stopping dacarbazine – consultant decision
Other non-haematological toxicities	≥ grade 3	Omit until ≤ grade 1 then reduce dose by 20% for future cycles.

Liver necrosis is a rare but serious potential complication caused by occlusion of the intrahepatic veins. If this occurs, discontinue treatment.

Adverse effects - for full details consult product literature/ reference texts

- **Serious side effects**

Myelosuppression
Hepatic necrosis

- **Frequently occurring side effects**

Myelosuppression
Nausea and vomiting
Flu-like symptoms
Diarrhoea
Fatigue
Alopecia
Phlebitis
Bone pain
Liver enzyme elevation

- **Other side effects**

Headache
Anorexia
Confusion

Significant drug interactions – for full details consult product literature/ reference texts

CYP1A2 and 2E1 inhibitors: may enhance toxicity of dacarbazine.
CYP1A2 inducers: may reduce effect of dacarbazine.
Phenytoin: reduced absorption of phenytoin from GI tract, avoid concomitant use.
Coumarin anticoagulants (e.g. Warfarin): monitor INR closely

Additional comments

Nil

References

- Stachhiotti, S. et al. Dacarbazine in Solitary Fibrous Tumor: A Case Series Analysis and Preclinical Evidence vis-à-vis Temozolomide and Antiangiogenics. Clin Cancer Res; 2013; 19(18) 5192-5201.
- Garcia-del-Muro X et al. Randomised Phase II Study Comparing Gemcitabine Plus Dacarbazine Versus Dacarbazine alone in Patients With Previously Treated Soft Tissue Sarcoma: A Spanish Group for Research on Sarcomas Study. J Clin Oncol 2011; 29:2528-2533
- Demetri et al. Efficacy and Safety of Trabectedin or Dacarbazine for Metastatic Liposarcoma or Leiomyosarcoma After Failure of Conventional Chemotherapy: Results of a Phase III Randomized Multicenter Clinical Trial. J Clin Oncol. 2016 Mar 10;34(8):786-93
- Summary of Product Characteristics – Dacarbazine (Medac) accessed 19 June 2025 via www.medicines.org.uk

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