Prescription & Monitoring of High Dose Corticosteroids in Oncology Inpatients

'High dose steroids' refers to ≥ 4mg/ day of dexamethasone (or equivalent) prescribed *for palliative indications* (not as part of the chemotherapy regimen)

If newly starting high-dose steroids:

- Document **indication**
- Consider need to start concurrent **PPI** *(see section 2 over leaf)*
- Ensure **review date** documented
- Start **CBG** monitoring

On long term steroids on admission:

- Clarify and document **indication**
- Consider concurrent **PPI** if indicated
- If continued, consider dose increase if unwell (sick day rules)
- Ensure appropriate **CBG** monitoring.

- For suggestions of indications and doses in oncology see overleaf
- Prescribe regular steroids as single morning dose but if higher dose required need to give as two divided doses before 1400

Whilst on high dose steroids:

- Monitor for adverse effects *(see section 3 overleaf)*
- Review ongoing requirement for steroids minimum weekly, ensure prescribed at lowest dose for indication required
- If being used for palliative symptom control, i.e. wellbeing and no benefit identified in 7 days, then to stop.
- Capillary Blood Glucose (CBG) Monitoring[1]

If not known to have diabetes: Once daily monitoring – in the afternoon.

➔ If two consecutive readings ≥12, increase to QDS monitoring

If known to have diabetes: Four times daily monitoring

If patient is receiving end of life care consider if appropriate to monitor less frequently

CBG monitoring unlikely to be required if short course (<5/7) as part of chemotherapy.

Two CBG readings ≥12 in any 24hr = Steroids Induced Hyperglycaemia

(See trust algorithm on managing this and refer to diabetes team if required)

https://intranet.gloshospitals.nhs.uk/departments/medical/diabetes- endocrinology/

LINK --> Algorithm for Managing Glucose with Once Daily Steroids

Stopping steroids:

- Consider **weaning** regime if >1 week of high dose steroid (see section 6).
- Stop medications used to manage adverse effects no longer required ie PPI
- Copy of **weaning regime on discharge summary** for patient and community team

If discharging patient on steroids:

- Wean to **minimum** effective dose
- Arrange review of steroid use i.e. outpatient **follow up**
- Ensure plan for **once weekly** CBG monitoring in the community

Educate patient on need to inform health care team if high CBG readings, symptoms of hyperglycaemia and need to review ongoing requirement

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Symptom	Suggested initial daily dose of steroids– often given in divided doses before 1400
Cerebral metastasis, Metastatic Spinal Cord Compression Superior Vena Cava Obstruction	16mg/day dexamethasone
Obstruction of bowel/bronchus/ureter. Neuropathic, bone or liver capsule pain. Lymphangitis.	8mg/day dexamethasone
Appetite. Energy/wellbeing	2-6mg/day dexamethasone
Immunotherapy adverse reactions *Separate guidance exists regarding this.*	https://www.gloshospitals.nhs.uk/gps/treatment-guidelines/management-immune-related-adverse-events-iraes-caused-immunotherapy/

Section 2: Consider prescription of a concurrent PPI if high risk features

- Advanced malignancy
- Other high risk features include: older age ≥ 65, previous GORD, gastric ulcer, upper gastrointestinal bleed or perforation, symptoms of dyspepsia
- Polypharmacy i.e. NSAIDs, SSRIs or concurrent treatment dose anticoagulation

First line choice would be omeprazole 20mg OD, or lansoprazole 15mg OD.

Section 3: Early serious adverse effects that can occur **within days** of starting steroids:

- Steroid induced diabetes mellitus or worsened diabetes control, with risk of Hyperosmolar Hyperglycaemic State (HHS)
- Peptic or oesophageal ulceration in high risk patients
- Oral candidiasis
- Psychiatric symptoms including psychosis and suicidal thoughts

Longer term side effects occurring after weeks include hypertension, immunosuppression, Cushingoid appearance, osteoporosis and muscle wasting leading to proximal myopathy.

Section 4: CBG monitoring

Record CBG readings post-lunch or evening meals, as blood glucose tend to peak at 4 to 8 hours post administration of oral corticosteroids.
CBG monitoring to continue until steroids stopped and CBG 4-12 mmol/L is restored.

In palliative patients or those at high risk from hypoglycaemia (for example if high falls risk, frailty or variable oral intake), it may be appropriate to relax CBG target ranges.
Existing trust guidelines may help to guide appropriate monitoring in these patients- http://ghtsp07.glos.nhs.uk/sites/ghnhsft_policy_library/RelatedDocs/A0030%20RD1.pdf

Section 5: Stopping steroids

Patients are at high risk of adrenal suppression and therefore require weaning if more than 1 week of high dose steroids (>4mg dexamethasone or equivalent) or previous adrenal suppression.
Weaning can be often be rapid until physiological dose (1-2mg dexamethasone / ~7.5mg - 15mg prednisolone) and then need to reduce rate.
Specific weaning regimes will depend on the individual and indication and therefore is bigger than the scope of this guidance - *as a general rule reasonable to reduce by half every 5-7 days. i.e. 8mg BD dex -> 8mg OD -> 4mg OD -> 2mg OD -> 1mg OD -> 0.5mg OD -> stop*

References:

1. Management of Hyperglycaemia and Steroid (Glucocorticoid) Therapy, Joint British Diabetes Societies for inpatient care (JBDS-IP), October 2014
2. https://bnf.nice.org.uk/drug/dexamethasone.html