QUICK GUIDE	CORTICOSTEROIDS IN PALLIATIVE CARE (Follow local guidelines if available)

Corticosteroids are used extensively in palliative care. Dexamethasone is the preferred choice due to its relatively high anti-inflammatory potency and lower incidence of fluid retention and biochemical disturbance. They should be used with caution and be constantly monitored to prevent avoidable complications. (Potency: Dexamethasone 1mg ~ Prednisolone 7.5mg). Dexamethasone should be prescribed in terms of the 'base' (Dexamethasone) rather than the 'salt' (Dex Phosphate or Dex Sodium Phosphate). Tablets are formulated as the base. Prescribing injections can appear confusing. For practical purposes: 3.3mg/ml injection may be considered equal to 4mg tablet. http://www.ukmi.nhs.uk/filestore/ukmiaps/ProductsafetyassessmentforDexamethasone_Sept_2014.pdf

Treatment and Management

Standard starting doses for the different indications are not well established and must take account of patient factors. Ensure daily dose is administered before 2 p.m. in order to minimise insomnia. Clinical response must be reviewed within 7 days. Titrate down to minimum effective dose as soon as is possible.
Anorexia: 2 - 6mg daily. Judge response within 2 weeks. Although enhanced effect can still be present at 4 weeks, short courses are recommended to reduce risk of side effects.
Adjuvant analgesic: 8 - 16mg in cancer-related pain (e.g. liver capsular pain, nerve compression).
Anti-emetic: for chemotherapy follow Oncology guidelines. Refractory nausea and vomiting: 4 - 8 mg daily.
Obstructive syndromes e.g. bowel obstruction, upper airways compression, SVCO, lymphangitis carcinomatosis: 6 - 16mg daily.
Spinal cord compression: 16mg daily for 5 days. Maintain on 8mg daily during radiotherapy, then reduce dose over 2 weeks. If symptoms recur, increase to previous effective dose for at least 2 weeks before reducing again.
Raised intracranial pressure: 8 - 16mg daily for one week, and then reduce over 2-4 weeks to lowest dose which maintains benefit. (If treated with radiotherapy, steroids should be continued until one week post treatment, and then reduced as above). Consider trial of dose increase if symptoms recur.

ADVERSE EFFECTS:

- Glucose metabolism: Steroids can increase blood sugar levels. All patients on steroids should have regular blood glucose checks as per local guidance
- Insomnia: Give single or divided daily dose before 2 p.m. to prevent insomnia.
- Dyspepsia: Give after food. Usual practice would be to co-prescribe a PPI for the duration of the steroids. Be aware that PPIs cause hyponatraemia: to minimise risk of hyponatraemia, preferred PPI would be lansoprazole.
- Psychiatric disturbance: depression, mania, psychosis, delirium.
- Change in appearance: moon face, truncal obesity, negative body image.
- Musculoskeletal problems: proximal myopathy, osteoporosis, avascular bone necrosis.
- Increased susceptibility to infection: especially oral/pharyngeal candidosis (examine mouth regularly).
- Skin changes: thinning, bruising, acne, impaired wound healing.
- Other: hypertension, oedema, pancreatitis.

Drug interactions: see BNF.
Anti-epileptics: accelerate steroid metabolism so patients may require higher doses of steroids.
Warfarin: steroids alter the metabolism of warfarin increasing INR. Monitor INR more regularly.

SAFE USE: Monitoring and stopping treatment
Use the lowest effective dose for the shortest period of time. Close careful monitoring is essential.
Steroid withdrawal: stop without tapering dose if total treatment duration of less than 3 weeks AND daily Dexamethasone dose of 6mg or less AND symptoms unlikely to relapse.
Gradual dose reduction: is necessary if any of following:

- 3 or more weeks treatment, daily dose of more than 6mg Dexamethasone,
- Risk of recurrent severe symptoms,
- Repeated courses of steroids,
- Other possible causes of adrenal suppression.

Daily dose can be reduced rapidly (e.g. halving dose) to 4 mg/day, then more slowly by 1 - 2mg weekly in order to prevent a hypoadrenal crisis (malaise, profound weakness, hypotension).
Steroid treatment card: Patients on systemic steroids for > 3 weeks must be given a steroid card.

STEROIDS in last days of life: Subcutaneous dexamethasone can be used for those patients who are unable to take oral medications but who are benefiting from steroid therapy. In these situations give as a once or twice daily injection, the second dose taken before 2.00pm (to avoid insomnia). Dose calculated based on oral equivalent dose for the indication (as above). The recommended maximum single subcutaneous injection is 2ml.

For patients in the last few hours or days of life, the inability to swallow oral medication is often the factor leading to discontinuation of their corticosteroid treatment. For some individuals e.g. patients with brain metastases and significant symptoms that have benefited from steroid use, it may be appropriate to continue with subcutaneous corticosteroid to maintain symptom management.