GUIDELINES FOR PERIOPERATIVE STEROIDS

OBJECTIVES

• Prevention of perioperative adrenal crises in patients known to be, or at risk of adrenal insufficiency.
• Avoidance of unnecessary or excessive steroid administration by careful patient selection.

GUIDELINES 1,2

For patients currently or previously taking therapeutic steroids for chronic diseases such as Asthma, RA & Lupus for > 3weeks 6

<table>
<thead>
<tr>
<th>Patient Currently taking Steroids (for ≥ 3week)</th>
<th>≤ 10mg prednisolone/d</th>
<th>&gt; 10mg prednisolone/d for more than 1 week</th>
<th>Minor Surgery Eg: hernias, hands</th>
<th>Moderate Surgery Eg: hysterectomy, cholecystectomy, hemicolecctomy, THR</th>
<th>Major Surgery Eg: major trauma, cardiothoracic, Whipple’s Procedure, liver resection</th>
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<tbody>
<tr>
<td>Assume normal HPA axis</td>
<td>Take routine dose steroids pre-op No additional steroid cover required</td>
<td>Take routine dose of steroids pre-op OR 25mg Hydrocortisone IV at induction Resume normal medications post-op</td>
<td>Usual pre-op steroids +25mg Hydrocortisone at induction +100mg/day in divided doses for 24h</td>
<td>Usual pre-op steroids +25mg Hydrocortisone at induction +100mg/day in divided doses for 48-72h</td>
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<tr>
<td>Very high dose Immunosuppression</td>
<td>Continue usual immunosuppressive dose parenterally until able to revert to normal oral intake, eg 60mg prednisolone/24h = 240mg hydrocortisone/24h</td>
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<td>Patient formerly taking regular steroids (for ≥ 3week)</td>
<td>&lt; 3 months since stopped steroids treat as if on steroids</td>
<td>&gt; 3 months since stopped steroids no perioperative steroid required</td>
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EQUIVALENCY: Prednisone 10mg is equivalent to: Betamethasone 1.5mg; Cortisone Acetate 50mg; Dexamethasone 1.5mg; Hydrocortisone 40mg; Methylprednisolone 8mg. For Inhaled steroids: ≥750mcg Fluticasone or 1500mcg Beclomethasone/day, treat as ≥10mg prednisolone / day.

RATIONALE

• Patients taking therapeutic steroids (via any route) may have an inadequate stress response to surgery due to suppression of their hypothalamic-pituitary-adrenocorticoestroid (HPA) axis.
• This may manifest as critical hypotension, hypothermia, hypoglycaemia and confusion
• Patients thought to be at risk of HPA axis suppression should receive extra steroids during surgery in addition to their usual daily dose.
• Higher than clinically indicated doses of corticosteroids risk impaired wound healing, infection and delayed recovery and should thus be avoided.

EXCEPTIONS / ISSUES

• There is controversy in the literature about the need for steroid supplementation beyond basal requirements at the time of surgery, with mounting evidence that it may be unnecessary. More RCTs are required.3,4,5
• Patients with Primary Adrenal Insufficiency are a special group requiring physiologic replacement of glucocorticoids and mineralocorticoids, as well as supplementation in response to stress.4 Consult patient’s endocrinologist.

REFERENCES
3. Yong SL. Supplemental perioperative steroids for surgical patients with adrenal insufficiency (review). The Cochrane Database of Systematic Reviews 2012, Issue 12
6. Jung C. Management of adrenal insufficiency during the stress of medical illness and surgery. MJA 2008; 188:409-413