

# ADDISON'S DISEASE (PRIMARY ADRENAL INSUFFICIENCY)

## POTENTIALLY LIFE-THREATENING STEROID DEPENDENCY

### GLUCOCORTICOID MEDICATION REQUIREMENTS FOR SURGERY AND DENTISTRY

#### ADDISON'S CLINICAL ADVISORY PANEL (ACAP)

These surgical guidelines have been prepared by Professor John Wass of the Churchill Hospital, Oxford, Dr Trevor Howlett of Leicester Royal Infirmary, Leicester, Dr Wiebke Arlt of University Hospital, Birmingham and Dr Simon Pearce of the Royal Victoria Infirmary, Newcastle.

ACAP is a group of endocrinologists with an interest in adrenal medicine. It advises the Addison's Disease Self-Help Group on clinical matters. Further information about ACAP is available on the ADSHG website at [www.addisons.org.uk](http://www.addisons.org.uk)

ACAP has also issued emergency treatment guidance for hypoadrenalism and a patient education leaflet, available at [www.addisons.org.uk/publications](http://www.addisons.org.uk/publications).

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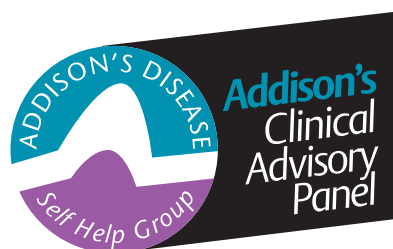
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Type of procedure	Pre-operative and operative needs	Post-operative needs
<b>Lengthy, major surgery with long recovery time</b> <i>eg. open heart surgery, major bowel surgery, procedures needing ITU</i>	100mg hydrocortisone i/m just before anaesthesia	Continue 100mg hydrocortisone i/m every 6 hours until able to eat & drink normally ( <i>discharged from ITU</i> ). Then double oral dose for 48+ hours. Then taper the return to normal dose
<b>Major surgery with rapid recovery</b> <i>eg. caesarean section, joint replacement</i>	100mg hydrocortisone i/m just before anaesthesia	Continue 100mg hydrocortisone i/m every 6 hours for 24 - 48 hours ( <i>or until eating &amp; drinking normally</i> ). Then double oral dose for 24 - 48 hours. Then return to normal dose
<b>Labour and vaginal birth</b>	100mg hydrocortisone i/m at onset of labour	Double oral dose for for 24 - 48 hours after delivery. If well, then return to normal dose
<b>Minor surgery</b> <i>eg. cataract surgery, hernia repairs, laparoscopy with local anaesthetic</i>	100mg hydrocortisone i/m just before anaesthesia	Double dose oral medication for 24 hours. Then return to normal dose
<b>Invasive bowel procedures requiring laxatives</b> <i>eg. colonoscopy, barium enema</i>	Hospital admission overnight with i/v fluids and 100mg hydrocortisone i/m during preparation. 100mg hydrocortisone i/m just before commencing.	Double dose oral medication for 24 hours. Then return to normal dose
<b>Other invasive procedures</b> <i>eg. endoscopy, gastroscopy</i>	100mg hydrocortisone i/m just before commencing.	Double dose oral medication for 24 hours. Then return to normal dose
<b>Minor procedure</b> <i>eg. skin mole removal with local anaesthetic</i>	Not usually required.	An extra dose only where hypoadrenal symptoms occur afterwards
<b>Major dental surgery</b> <i>eg. dental extraction with general anaesthetic</i>	100mg hydrocortisone i/m just before anaesthesia.	Double dose oral medication for 24 hours. Then return to normal dose
<b>Dental surgery</b> <i>eg. root canal work with local anaesthetic</i>	Double dose ( <i>up to 20mg hydrocortisone</i> ) one hour prior to surgery.	Double dose oral medication for 24 hours. Then return to normal dose
<b>Minor dental procedure</b> <i>eg. replace filling</i>	Not usually required.	An extra dose only where hypoadrenal symptoms occur afterwards.

#### GENERAL NOTES

- For any nil-by-mouth regimen, please arrange an intravenous saline infusion to prevent dehydration and maintain mineralcorticoid stability, eg. 1000ml every 8 hours if >50kg.
- Intramuscular hydrocortisone is preferable to intravenous administration as it gives more sustained, stable cover. It may alternatively be given by infusion pump, eg. hydrocortisone 25mg bolus then 5mg per hour in glucose 5%.
- Note that hydrocortisone acetate cannot be used due to its slow-release, microcrystalline formulation. Please use hydrocortisone sodium phosphate or hydrocortisone sodium succinate, 100mg.
- Monitor electrolytes and blood pressure post-operatively for all procedures requiring injected steroid cover. If the patient becomes hypotensive, drowsy or peripherally shut down, administer 100mg hydrocortisone i/v or i/m immediately. Please administer bolus hydrocortisone over a minimum of 10 minutes to prevent vascular damage.
- If any post-operative complications arise, eg. fever, delay the return to normal dose.
- Please ensure back-up supplies of oral and injectable hydrocortisone are available for resuscitation before commencing surgery. Even at full steroid cover, post-operative resuscitation may occasionally be required.



The Addison's Disease Self-Help Group works to support people with adrenal failure and promote better medical understanding of this rare condition.

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