Melatonin Policy in Critical Care

Background
- Diurnal sleep patterns have been reported to be consistently or periodically disturbed in 65-75% of critical care patients.
- Melatonin secretion is reduced in patients in critical care, especially those on mechanical ventilation, with the normal nocturnal peak absent or flattened.
- It is thought melatonin supplementation may improve synchronisation of the circadian system and promote a normal sleep pattern, however current evidence is limited.
- Melatonin 2mg modified release tablets are licensed as monotherapy for the short-term treatment of primary insomnia.
- Doses greater than 2 mg have been shown to produce supra-physiological daytime levels in the critical care setting and may lead to carry-over effects the following morning.

Treatment Algorithm

Dosage regimen
- Dose in adults: 2 mg SR tablets once daily at 22:00 for 3 weeks. For those unable to swallow or with NG tubes in situ then 1-2mg liquid (sublingual) should be used instead.
- Improvements would be expected within five days, so review at this time and discontinue if insufficient benefit seen.

Considerations
- Melatonin should be used with caution in renal impairment (CrCl<15ml/min)
- Melatonin is not recommended in hepatic impairment due to reduced clearance.
- Melatonin has the potential to interact with drugs affecting the CYP450 isoenzymes.
- The incidence of adverse reactions in clinical trials was similar for the licensed product and placebo, with the most common reactions being headache, pharyngitis, back pain and asthenia.
- For further information see product data sheet.

References