

Clinical Standard Operating Procedure (SOP)

BRIGHT LIGHT THERAPY

SETTING	A600 – Adult Critical Care
FOR STAFF	Nursing and medical staff
PATIENTS	Only for use on the Adult Critical Care unit (A600). Priority goes to long term patients, those suffering from delirium, altered sleep pattern or patients in bed spaces with limited daylight (7,8,9,10,17,18,19,20). To be used in conjunction with Delirium care bundle

STANDARD OPERATING PROCEDURE

Background

Light therapy is commonly used to treat symptoms of Seasonal Affective Disorder (SAD) or the 'winter blues'. Light boxes can provide bright light that can help boost energy levels and make individuals feel more awake. Light affects the body through photoreceptors in the eye and in the skin. Light exposure is linked to a range of biological and behavioural effects including the circadian secretion of melatonin and cortisol levels which are abolished in critically ill patients. ¹.

Sleep deprivation is one of many contributing factors to delirium in the Intensive Care Unit. Bright light therapy as part of a multicomponent bundle has been shown to improve sleep and functional outcomes in older adults ^{2,3}. There is some suggestion that using light boxes can also help to reset the sleep/wake cycle which means patients are more awake during the day when they are required to take part in vital rehabilitation.

Using Lumie Brightspark

- Position Brightspark at roughly arm's length (50cm) with plastic screen angled towards patient's face.
- Plug in and flick on switch on top of light.
- The light should reach patients eyes although they do not have to stare directly at it and it will also be effective through skin exposure.
- It has been shown to be most effective in the morning. Early evening light exposure can also be beneficial but not too close to bedtime as it may keep patient awake.
- Treatment should last between 40-120mins although it should be stopped if patient complains of headaches, eye strain, nausea or hyperactivity.

Precautions

Avoid in patients with evidence of photosensitivity

RELATED DOCUMENTS **Pain, Agitation, Delirium & Sleep Guidelines for Critical Care**

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REFERENCES

1. Castro, R., Angus, D. C. & Rosengart, M. R. The effect of light on critical illness. *Crit Care* **15**, 218 (2011).
2. Chong, M. S., Tan, K. T., Tay, L., Wong, Y. M. & Ancoli-Israel, S. Bright light therapy as part of a multicomponent management program improves sleep and functional outcomes in delirious older hospitalized adults. *Clin Interv Aging* **8**, 565–572 (2013).
3. Taguchi, T. Bright light treatment for prevention of perioperative delirium in elderly patients. *Journal of Nursing Education and Practice* (2013). doi:10.5430/jnep.v3n10p10