References

1 Isaac BTJ, Clarke SE, Islam MS, Samuel JT. Screening for obstructive sleep apnoea using the STOPBANG questionnaire and the Epworth sleepiness score in patients admitted on the unselected acute medical take in a UK hospital. *Clin Med* 2017;17:499–503.
2 Chung F, Yegneswaran B, Liao P *et al*. STOP questionnaire: a tool to screen patients for obstructive sleep apnea. *Anesthesiology* 2008;108:812–21.
3 Ziso B, Larner AJ. STOP-Bang: screening for obstructive sleep apnoea in a cognitive disorders clinic. *J Sleep Disord Ther* 2016;5:223.
4 Shastri A, Bangar S, Holmes J. Obstructive sleep apnoea and dementia: is there a link? *Int J Geriatr Psychiatry* 2016;31:400–5.

Thoracic ultrasound experiences among respiratory specialty trainees in the UK

There were some interesting points raised by Sivakumar *et al* in their article on thoracic ultrasound experience among respiratory trainees in the UK.[1] The difficulties with supervision and competent senior clinicians is one which is also seen among acute internal medicine trainees wishing to gain experience in point of care ultrasound (POCUS),[2] and requires much work to overcome. It is reassuring that progress is being made within respiratory medicine.

The fact that a number of trainees claim confidence in diagnosing pulmonary oedema and pneumothorax with ultrasound is interesting, since neither of these pathologies are covered within the Royal College of Radiologists (RCR) curriculum.[3] Indeed, I am not aware either of a training curriculum that sits within respiratory medicine which covers the use of bedside ultrasound for respiratory failure, as opposed to pleural disease which has traditionally been the mainstay of thoracic ultrasound. To my knowledge, the focused acute medicine ultrasound (FAMUS) curriculum[4] is the only training programme for physicians within the UK which covers the use of POCUS in patients with conditions like pneumothorax and pulmonary oedema.

I agree with the sentiment that the current RCR curricular do not entirely fulfil the requirements of respiratory medicine trainees, since they do not cover the use of thoracic ultrasound for respiratory failure. There is increasing evidence for the utility of POCUS for aiding diagnoses of pneumothorax, pulmonary oedema, pneumonia, asthma/COPD and pulmonary embolism,[5] and this should surely form part of a future respiratory medicine ultrasound curriculum. This seems imperative to me given that respiratory medicine (and indeed acute internal medicine) care for the majority of medical patients with acute respiratory failure.

A revision of the current respiratory medicine ultrasound curriculum to include a respiratory failure component would require a significant undertaking from training committees to support both trainees to achieve those competencies, and trainers to deliver them. However, given this is a largely untapped use of POCUS with significant scope to improve diagnostic accuracy,[5] it is a logical extension of the current use of ultrasound within respiratory medicine. ■

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Conflict of interest

The author is a member of the FAMUS working group.

References

1 Sivakumar P, Kamalanathan M, Collett AS, Ahmed L. Thoracic ultrasound experiences among respiratory specialty trainees in the UK. *Clin Med* 2017;17:408–11.
2 Smallwood N, Matsa R, Lawrenson P, Messenger J, Walden A. A UK wide survey on attitudes to point of care ultrasound training amongst clinicians working on the Acute Medical Unit. *Acute Med* 2015;14:158–68.
3 Royal College of Radiologists. *Focused ultrasound training standards*. London: RCR, 2012.
4 Smallwood N, Dachsel Matsa R *et al*. Focused acute medicine ultrasound (FAMUS) – point of care ultrasound for the Acute Medical Unit. *Acute Medicine* 2016; 15:193–6.
5 Lichtenstein DA, Mezière GA. Relevance of lung ultrasound in the diagnosis of acute respiratory failure: the BLUE protocol. *Chest* 2008;134:117–25.

Sleep in adolescents and young adults

Editor – I congratulate the authors of the recent article about sleep in adolescents and young adults (AYAs).[1] Like the authors, I am aware of the association between poor sleep hygiene and the development of mental health and chronic pain disorders. As a consultant physician working in the UK with an interest in AYA care, I observe the consequences of poor sleep in this group of patients on an almost daily basis. I have an interest in 'smartphone overuse syndrome' (SOS) in AYAs and, in particular, smartphone use at night and the negative effects it may have on sleep. The UK Ofcom communications report published in 2016 highlighted that, on average, we now spend more time on electronic media and communications than we do sleeping.[2] Two-thirds of 16–19-year-olds wake in the middle of the night to check their phones.[3]

A number of theories have been proposed about how smartphone use in the evening and at bedtime can affect our sleep.[4]

- Sleep could simply be displaced by smartphone use at night leaving less time for sleep, sometimes referred to as 'sleep stealing'.
- Smartphone use at bedtime could lead to increased mental, emotional or physiological arousal and therefore interfere with time to onset of sleep.
- Light emission from smartphones that use back-light or 'blue-range' light technology has been demonstrated to interfere with melatonin secretion and our circadian physiology.
- Incoming messages, emails, status updates or calls can disturb sleep and are associated with a reduction in the quantity and quality of deep or 'restorative' sleep.

The comorbidity of depression with sleep problems is common and well documented.[5] A recent meta-analysis reviewing the relationship between sleep and depression in adolescents suggested that sleep disturbance plays a key role in the aetiology of depression during adolescence.[6] A study published in 2012 found a significant association between nocturnal mobile phone use and poor mental health, suicidal feelings and self-harm after controlling for other confounding variables (including sleep length) in 17,920 adolescents.[7]

Despite evidence demonstrating an increase in the use of electronic media and smartphones in AYAs, as well as evidence linking this increased use to sleep and mood disturbances, studies looking at smartphone use, sleep disturbance and chronic pain