Expert Consensus on Minimum Standards of Practice in the use of Cognitive Behavioural Therapy for Insomnia (CBT-I) 2019

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Table 1. Training and experience of practitioners

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| **Essential** | **Desirable** |
| As a minimum, the clinician should be knowledgeable in matters of sleep architecture, sleep disorders and CBT-I as a treatment technique. Clinicians should be skilled in assessment, diagnosis, clinical reasoning and working with patients/clients. They should have supervision or peer support from another sleep specialist | There are stand-alone training courses in the UK but there is no established training pathway. |

Table 2. Assessment

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| **Essential** | **Recommended** |
| An initial assessment, prior to initiating treatment, should include:* Sleep history
* Screening for other sleep/medical disorders
* Medical history
* Psychiatric history
* Medication use
* Current lifestyle practices (diet, exercise, substance use, occupation, etc.)
* Outcome measures

***Outcome measures*** are used before and after treatment to measure treatment effectiveness. The following are recommended as a minimum:* Insomnia Severity Index [ISI] (Morin *et al.* 1993, Bastien 2011 *et al*)
* Epworth Sleepiness Scale (John 1991)
* An anxiety/depression scale, e.g. GADS (Kroenke *et al.* 2001), PHQ9 (Swinson 2006), DASS-21 (Lovibund & Lovibund 1995)
* Sleep diary of previous 1–2 weeks (necessary for calculation of sleep efficiency): a self-report diary is preferable to the use of Fitbits and other devices/apps.
* Recording of reliance on sleeping medication

***Medication***If patients are taking prescribed or over the counter medication, a plan regarding its use/reduction should be made at the start of therapy, in consultation with the original prescriber or the patient’s GP. CBT-I during tapering of hypnotics is recommended and improves outcome (Wilson 2019) | Dysfunctional Beliefs and Attitudes Scale [DBAS-16] (Morin 2002)Fitbits and other devices/apps can be a useful adjunct to self-report.Actigraphy may be useful in the assessment of someone with cognitive impairment or where sleep state misperception is suspected.Overnight monitoring, polysomnography, is not routinely indicated for assessment and treatment of insomnia but may be required if there is the possibility of another sleep disorder. |

Table 3. Design and delivery of therapy

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| **Essential** | **Recommended** |
| ***Number of treatment sessions***CBT-I involves a package of measures, usually delivered over a number of sessions, over a period of weeks. This allows for instructions to be shared and progress to be monitored.Five to six face-to-face, telephone or online sessions should be offered, usually 60 to 90 minutes’ duration. These may be on a one-to-one or group basis.Six hours is the typical total time required.The interval between sessions is optimally between 1–2 weeks especially at the start of therapy while behavioural management such as sleep restriction is commenced, and patients are most vulnerable to experiencing sleepiness and demotivation. Subsequent sessions might be less frequent. | Recent research has supported the use of one-day only therapy groups, but a total of six hours of time is required (Swift *et al.* 2012). |
| ***Modality*** includes:* Individual
* Group
* Internet based delivery – e.g. *Sleepstation* (Anderson *et al.* 2014) or *Sleepio* (Espie *et al.* 2012)

No specific modality for delivery of CBT-I is recommended but all modalities should have consistent standards.  | Internet-based therapy may be more effective if supplemented with personal support and delivered over a longer time period (Zachariae *et al.* 2016). |

Table 4.Session content: Sleep restriction therapy

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| **Essential** | **Recommended** |
| (Together with stimulus control therapy this is also sometimes known as sleep scheduling)Morning anchoring (having a set rising time, seven days a week) is essential. Patients should be encouraged to observe this rising time, irrespective of the quality of their night’s sleep. The individual is asked to spend in bed, only their average total sleep time (TST), as calculated from the sleep diary, or five hours, whichever is the greater. That is, if the diary reveals a TST of less than five hours, then five hours should be set as a minimum time in bed (TIB).The time at which to go to bed (when sleepy) is calculated from the morning rising time.When average weekly sleep efficiency (TST/TIB x100) is 85% or greater, the TIB is increased, usually by 15 minutes.Time in bed should not be increased more than once in a weekSleep restriction should continue until TIB is sufficient to maintain good daytime functioning without leaving the individual too vulnerable to a reoccurrence of insomnia (Perlis *et al.* 2010)*Sleep restriction therapy should not be carried out without the supervision of a health professional experienced in sleep protocols. This is because of the recognised likely temporary consequences of sleepiness or diminished performance with respect to driving or operating machinery, about which patients must be warned.* | On occasions, to maintain overall adherence to the schedule, it may be appropriate to allow a patient to sleep on for a maximum of one hour and ideally on a Saturday, assuming a conventional working week.**Contraindications to sleep restriction**:* Active epilepsy
* Bipolar disorder
* Untreated sleep apnoea or sleep apnoea unresponsive to CPAP
* Psychosis

**Relative contraindications**:* Epworth Sleepiness Scale score over 11
* Chronic fatigue syndrome
* Migraine
* HGV/PSV and other professional drivers and pilots (Perlis *et al.* 2011).

As an alternative to sleep restriction, sleep compression may be recommended, reducing time in bed by 15 minutes weekly until 85% sleep efficiency is achieved |

Table 5.Session content: Stimulus control therapy

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| **Essential** | **Recommended** |
| It is recommended that whenever practical, the bedroom be used only for sleep and sex. Night-time and morning activities and routines in the bedroom should be kept to a minimum. The patient should be advised to go to bed when *sleepy* not just when feeling tiredThe patient should keep a regular rising time seven days a week.It is agreed that the recommended ‘15-minute rule’ i.e. getting out of bed if not asleep within 15 minutes, should be a maximum time limit as it is important to be away from the bed on/before becoming frustrated or angry at not sleeping (‘wide awake and cross’) if this occurs in less than 15 minutes.Potential activities to carry out in the night when unable to sleep, should be identified ahead of time, to increase the likelihood of adherence to this requirement overnight. Activities should be relaxing and enjoyable, but they should not be an essential daytime activity (e.g. not getting ahead with the ironing or work or a timed activity and it should be away from the bed). They should not involve exposure to screens, because of increased mental alertness and light stimulus.Overnight activities should be carried out in a warm comfortable place outside of the bedroom and in low light, for at least 30 minutes and until the person is sleepy. | * Elderly with risk of falls or those who cannot safely get out of bed unassisted.
* Where there is excessive anxiety regarding being outside the bedroom
* Where there are concerns about safety of communal areas outside the bedroom

If an individual is unable to leave the bedroom when unable to sleep overnight, the bedroom environment could be divided to create an obvious sleep area versus activity area.Daytime sleep should be avoided but, where it is unavoidable, a nap should be less than 30 minutes and more than six hours before the target bedtime. A nap is advisable if the patient is sleepy and driving is necessary. The patient should be reminded that it is her/his responsibility to ensure safety. |

Table 6. Session content: other elements of CBT-I

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| ***Sleep education***It is important for a patient to have a basic understanding of sleep stages, natural wakening at night, the sleep homeostat, natural variation between individuals in circadian rhythm (‘owls and larks’) and changes in sleep duration throughout life. |
| ***Sleep hygiene*** It is important to discuss noise, temperature, and light in the bedroom environment as well as comfort. Discussion about use of caffeine, nicotine, alcohol and medication, prescribed or non-prescribed, is also important. |
| ***Relaxation***Progressive muscular relaxation is favoured due to the strong evidence base: ‘top down’ (Jacobson 1929) practised outside the bedroom. |
| ***Cognitive therapy*** For dysfunctionalattitudes and beliefs (Morin *et al.* 2002) and sleep-related anxiety-based thoughts – e.g. catastrophic thoughts (Harvey & Greenall 2003) and sleep effort (Espie *et al.* 2006). |
| ***Techniques for dealing with racing thoughts**** Cognitive distraction (Ree *et al.* 2005)
* Thought stopping (Levy 1991)
* Imagery (Harvey 2003)
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| ***Paradoxical Intention***‘Trying to stay awake’ (Ascher *et al.* 1979) can be helpful for those with an intense preoccupation with sleep and who exert considerable effort to sleep (Perlis *et al.* 2011). |
| ***Exercise***Exercise is known to contribute to increased sleep quality (Youngstedt & Kline 2006, Fairbrother *et al.* 2014, Hartescu *et a*l 2015). |

Table 7. Follow up

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| **Essential** | **Recommended** |
| Follow-up should be carried out at a 3–6-month interval after the completion of therapy, especially where insomnia is co-morbid.Repeat of outcome measures previously usedIf there are new or unaddressed medical issues that arise, advise that the individual discuss these with the GP, or provide onward referral to an appropriate service. | * A reduction in ISI score of 8.4 correlates with ‘moderate improvement’ (Morin *et al.* 2011).
* A reduction in ISI score of 9.9 correlates with ‘marked improvement’ (Morin *et al.* 2011).
* Improved sleep efficiency by >20% from baseline is often reported as successful outcome (Spielman *et al.* 1987).
* Improved daytime alertness (Van Houdenhove *et al.* 2011).
* Improved coping skills (Green *et al.* 2005).
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