Supplementary Table 1. Recommended timings (estimates) for the use of bright light to adjust the body clock after time zone transitions on the first full day after arrival (day 0). Adapted from Edwards et al.[1]

	Good local times (hours) for exposure to light	**Bad local times (hours) for exposure to light**
Time zones to the west (hours)		
3	19:00-01:00 †	03:00-09:00 *
4	18:00-24:00 †	02:00-08:00 *
5	17:00-23:00 †	01:00-07:00 *
6	16:00-22:00 †	24:00-06:00 *
7	15:00-21:00 †	23:00-05:00 *
8	14:00-20:00 †	22:00-04:00 *
9	13:00-19:00 †	21:00-03:00 *
10	12:00-18:00 †	20:00-02:00 *
11	11:00-17:00 †	19:00-01:00 *
12	10:00-16:00 †	18:00-24:00 *
13	09:00-15:00 †	17:00-23:00 *
14	08:00-14:00 †	16:00-22:00 *
Time zones to the east (hours)		
3	09:00-15:00 *	01:00-07:00 †
4	10:00-16:00 *	02:00-08:00 †
5	11:00-17:00 *	03:00-09:00 †
6	12:00-18:00 *	04:00-10:00 †
7	13:00-19:00 *	05:00-11:00 †
8	14:00-20:00 *	06:00-12:00 †
9	15:00-21:00 *	07:00-13:00 †
10	Treat as 14 hours to the west ‡	Treat as 14 hours to the west ‡
11	Treat as 13 hours to the west ‡	Treat as 13 hours to the west ‡
12	Treat as 12 hours to the west ‡	Treat as 12 hours to the west ‡

† Promotes a phase delay of the body clock * Promotes a phase advance of the body clock. ‡ Body clock adjusts to large delays easier than to large advances. For timing for subsequent days, broadly assume that for each day after arrival irrespective of eastward and westward travel the human will adapt by 1 h in the required direction. Therefore, the first full solar day after arrival (day 1) of an 8 time zone journey as a rule of thumb treat as though going 7 time zones and day two treat as 6 time zones etc.– continue this for subsequent days until adjusted or at least the first 3–4 days after arrival where maximal adaption will occur. This strategy is based on the phase response curve derived from a single pulse of bright light.[2] The size of phase shifts depends upon light intensity, domestic lighting (~250 lux) exerts smaller effects than natural light (5,000–15,000 lux). Supplementary Table 1 assumes core body temperature minimum of 05:00 hours which as a rule of thumb is approximately that of intermediate types. For outright morning types assume core body temperature minimum of 04:00 hours, and for outright evening types assume 06:00 h. Please note it is advised that the phase position of a traveller (core body temperature minimum) be measured prior to the flight to individualise the adaption strategy accordingly. For example, an individual with a core body temperature minimum at 06:00 hours should, after a journey across three time zones to the west (see row 1), seek light at 20:00–02:00 hours and avoid light at 04:00–10:00 hours.

References

1. Edwards BJ, Robinson CM, Waterhouse JM. Practical considerations for team travel, the lifestyle of elite athletes travel fatigue and coping with jet lag. In: Worsfold P, Twist C, eds. The Science of Rugby. London, UK: Routledge 2014:156-74.

2. Minors DS, Waterhouse JM, Wirz-Justice A. A human phase-response curve to light. *Neurosci Lett* 1991;133:36-40. doi: 10.1016/0304-3940(91)90051-t