Table 6. Studies included for the question “How long should children with SRC rest?”

| **Paper** | **Design** | **Participants (n, age, sex)** | **Exposure/ Intervention (Definition)** | **Outcome (Definition)** | **Results**  **(Including statistical outcomes)** | **Main Limitations** | **Level of Evidence** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Brooks et al., 2016 101 | Controlled without randomization | (n=154);  8-17yrs;  90 male, 64 female | Cognitive exertion in form of CNT while in ED at diagnosis | PCSI score at pre-injury (estimate); 7-10 days; 1 month; 2 month; 3 month | No significant difference in % symptotatic at any of the time points. | Selection bias, participants self-selected whether or not to undergo testing | 3 |
| Howell et al., 2016 103 | Observational cohort study | (n=364);  8-27yrs (some analyses for <19yrs separated out);  222 male, 142 female | Physical activity level | Duration of symptoms (days) | Pediatrics/ Adolescents – higher levels of physical activity were associated with shorter symptom duration | Patients self-selected activity level | 3 |
| Moor et al., 2015 104 | Observational cohort study | (n=56);  12-19yrs;  30 male, 26 female | Adherence to treatment recommendation (modified Sport Injury Rehab Adherence Scale) | Duration of treatment | No significant association between adherence and duration of treatment | 50% response rate, self-report, | 3 |
| Thomas et al., 2015 107 | Randomized controlled trial | (n=88);  11-22yrs;  34 female, 65 male | Strict rest | Symptom duration, neurocognitive function, balance | Strict rest associated with higher symptom score and longer duration of symptoms | Unclear if “usual care group” also employed strict rest | 2 |
| Moser et al., 2015 105 | Descriptive natural history | (n=13);  12-17yrs;  7 male, 6 female | Cognitive and physical rest | CNT scores | Rest between visits resulted in greater improvement | No control group | 3 |
| Brown et al., 2014 77 | Observational cohort study | (n=355);  8-23yrs,  220 male, 135 female | Level of cognitive activity between visits | Symptom duration | Highest levels of cognitive activity associated with prolonged recovery; other levels of cognitive activity showed similar recovery | Self selected activity levels | 3 |
| Gibson et al., 2013 102 | Retrospective cohort study | (n=184);  8-26yrs;  50 female 134 male | Recommendation for cognitive rest | Symptom duration (>30 days) | No effect of recommendation for cognitive rest on symptoms > 30 days | Confounding by indication | 4 |
| Moser et al., 2012 109 | Descriptive natural history | (n=49);  14-23yrs;  33 male, 16 female | Timing of recommendation for physical and cognitive rest (1-7d, 8-30d, >30d post injury) | CNT scores | Rest was associate with improvement in scores regardless of timing | No control group | 3 |
| Renjilian et al., 2015 106 | Prospective cohort study | (n=34);  11-17yrs | Physical activity (accelerometry measured) | Symptom scores | Early in recovery (< 5 days) rest appeared beneficial in decreasing symptoms | Self selected activity level | 3 |
| Grool et al 2016 110 | Observational  Cohort Study | (n=2413);  5-17.99 yrs | Self-report questionnaire on physical activity in first 7 days post enrollment. | Presence of PPCS, at 28 days. (≥ 3 new or worsening individual symptoms compared with the preconcussion status) | At 7 days 69.5% reported participating in physical activity, 30.5% reported no physical activity.  Early participa- tion in any type of physical activity compared with no physical activity was associated with lower risk of PPCS 24.6% vs 43.5% at 28 days. | Observational,  Unmeasured confounders,  Self report,  No record of duration/frequency of physical activity,  No record of cognitive load,  Treatment varied across sites/physicians,  Activity between 7-28 days not recorded. | 3 |

CNT, Computerised Neuropsychological Tests; ED, Emergency Department; PCSI, Post Concussion Symptom Inventory, PPCS, Persistent PostConcussive Symptoms.