

### Appendix 9. Baseline characteristics of children with a low or medium level of needle apprehension (intention-to-treat analysis)

	Standard care (n=29)	VR intervention (n=32)
Age (months)	48 [48–49]	48.5 [48–49]
Female sex	9 (31)	16 (50)
Primary language – English	29 (100)	29 (90.6)
Previous VR experience	3 (10.3)	1 (3.1)
Needle apprehension	1 [1–2]	2 [1–2]
Vision concerns	0 (0)	1 (3.1)
Behavioural concerns	1 (3.4)	0 (0)
Developmental concerns	0 (0)	0 (0)
Medical history <sup>a</sup>	2 (6.9)	3 (9.4)

Data are given as the median [interquartile range] or n (%).

VR, virtual reality.

<sup>a</sup>Medical history included anaphylaxis/allergy (n=3), asthma (n=1), and prematurity (n=1).

### Appendix 10. Pain, distress and enjoyment scores among those with a low or medium level of needle apprehension (intention-to-treat analysis)

	Standard care (n=29)	VR intervention (n=32)	P-value
Child rating of pain/distress			
Faces Pain Scale – Revised	2 [0–2]	2 [0–6]	0.87
Poker chip tool	1 [0–3]	1 [1–2]	0.76
Observer ratings of pain/distress			
Parent rating of pain (VAS)	15 [4–23]	10 [0.5–27]	0.58
Parent rating of distress (VAS)	8 [2–26]	3 [0–17.5]	0.19
Practitioner rating of pain (VAS)	14 [3–23]	7 [1.5–21]	0.3
Practitioner rating of distress (VAS)	15 [3–23]	7.5 [0–20]	0.19
Enjoyment	2 [1–2]	1 [1–2]	<0.0001

Unless indicated otherwise, data are presented as the median [interquartile range]. P-values were calculated using the Wilcoxon rank-sum test.

Enjoyment data were missing for five children in the standard care group.

Poker chip tool data were missing for one child in virtual reality (VR) group.

VAS, visual analogue scale.