

	Run-in (N=22)	Stage 1 (N=22)	Stage 2 (N=22)	Stage 3 (N=21)	Stage 3 vs Run in		Stage 3 vs Stage 1		Stage 3 vs Stage 2	
					Mean fold change (95% CI)	p	Mean fold change (95% CI)	p	Mean fold change (95% CI)	p
Insulin line-set change										
Total time (minutes)	110 (88, 143)	103 (77, 138)	116 (78, 145)	89 (73, 103)	0.80 (0.68, 0.93)	0.003	0.90 (0.77, 1.04)	0.160	0.84 (0.72, 0.97)	0.022
Number of changes	24 (20, 25)	23 (18, 25)	24 (20, 27)	21 (13, 25)	0.88 (0.76, 1.01)	0.059	1.00 (0.87, 1.15)	0.979	0.91 (0.79, 1.04)	0.160
Median time per change (minutes)	5.0 (4.2, 5.3)	5.0 (4.0, 5.4)	4.8 (3.7, 5.3)	4.1 (3.3, 4.5)	0.82 (0.74, 0.91)	<0.001	0.82 (0.74, 0.91)	<0.001	0.86 (0.78, 0.95)	0.004
Sensor change										
Total time (minutes)	71 (21, 96)	46 (25, 65)	46 (25, 72)	32 (18, 45)	0.51 (0.36, 0.73)	<0.001	0.68 (0.48, 0.96)	0.029	0.61 (0.43, 0.87)	0.006
Number of changes	11.0 (9.0, 12.0)	10 (8, 11)	12 (10, 12)	12 (10, 13)	1.09 (0.89, 1.35)	0.402	1.14 (0.92, 1.41)	0.222	0.94 (0.76, 1.16)	0.585
Median time per change (minutes)	4.8 (3.3, 7.2)	4.2 (2.8, 4.6)	3.1 (2.4, 4.3)	3.0 (2.0, 3.6)	0.47 (0.36, 0.61)	<0.001	0.56 (0.43, 0.73)	<0.001	0.68 (0.52, 0.89)	0.004
Pump upload										
Total time (minutes)	40 (3, 69)	4 (0, 16)	0 (0, 0)	0 (0, 0)	0.08 (0.04, 0.18)	<0.001	0.35 (0.17, 0.74)	0.006	1.02 (0.48, 2.14)	0.968
Number of uploads	5 (1, 11)	1 (0, 2)	0 (0, 0)	0 (0, 0)	0.28 (0.19, 0.41)	<0.001	0.62 (0.42, 0.92)	0.017	0.95 (0.64, 1.41)	0.788
Median time per upload (minutes)	7.5 (5.8, 9.9)	6.2 (4.9, 9.5)	8.2 (3.4, 11.6)	10.1 (1.5, 28.3)	0.93 (0.28, 3.08)	0.902	1.02 (0.30, 3.48)	0.971	2.65 (0.63, 11.10)	0.183

**Supplementary Table 4:**

Descriptives for each stage are presented using median (IQR). Comparison between stages was performed using mixed effects linear regression with outcome transformed using natural logarithm. The changes are expressed as mean fold change with 95% confidence intervals (CI).