

Table S1. Vital signs recording in study population by wearable device or conventional measurement

ID	Sex	Age	Diagnosis	Total study time	Body temperature								Heart rate								Oxygen saturation							
					Everion® wearable device				Conventional measurements				Difference				Everion® wearable device				Conventional measurements				Difference			
					mean	std	#		mean	std	#		Abs	Rel (%)			mean	std	#		mean	std	#		Abs	Rel (%)		
001	m	14	appendicitis	5d (128h)	35.7	1.1	311236		36.5	0.3	22		-0.8	-2.3			64.7	14.8	311236		63.0	7.5	12		1.7	2.7		
002	m	17	appendicitis	2d (64h)	35.5	0.9	215999		37.1	0.4	33		-1.6	-4.4			77.3	12.7	215999		74.4	11.7	10		2.9	4.0		
003	m	13	appendicitis	1d (43h)	34.9	1.4	148722		36.8	0.3	17		-1.9	-5.1			74.3	16.6	148722		77.4	6.1	7		-3.2	-4.1		
004	f	7	osteomyelitis	2d (70h)	35.7	0.9	228905		37.3	0.6	30		-1.6	-4.3			94.2	15.8	228905		108.0	5.2	4		-13.8	-12.8		
005	m	8	osteomyelitis	2d (69h)	35.5	1.2	229670		36.9	0.6	24		-1.4	-3.8			91.5	15.1	229670		100.0	6.2	3		-8.5	-8.5		
006	m	10	appendicitis	5d (123h)	35.9	1.2	367225		37.3	0.3	26		-1.4	-3.8			72.4	11.7	367225		69.6	7.7	21		2.8	4.0		
007	m	8	septic arthritis	1d (43h)	35.0	1.6	83089		37.6	0.7	18		-2.6	-7.0			75.0	13.7	83089						0			
008	m	8	appendicitis	1d (45h)	33.7	2.0	29394		36.9	0.3	17		-3.2	-8.7			93.5	12.0	29394		106.5	9.1	4		-13.0	-12.2		
009	m	10	osteomyelitis	4d (119h)	35.0	1.2	251609		37.1	0.7	21		-2.1	-5.6			78.9	15.0	251609						0			
010	m	9	appendicitis	0d (21h)	35.7	0.8	73791		37.1	0.4	8		-1.4	-3.7			83.5	10.2	73791						0			
011	m	7	septic arthritis	0d (10h)	35.2	1.1	22042		36.8	0.4	6		-1.5	-4.2			111.7	13.6	22042						0			
012	f	15	appendicitis	1d (45h)	35.2	1.5	158047		36.7	0.2	10		-1.5	-4.2			68.5	11.1	158047		74.0		1		-5.5	-7.5		
013	f	4	appendicitis	2d (67h)	34.5	1.0	201450		37.1	0.7	14		-2.6	-6.9			94.3	18.4	201450		101.3	15.0	6		-7.1	-7.0		
014	m	4	septic arthritis	1d (33h)	35.6	1.0	70250		37.1	0.5	20		-1.5	-4.0			104.5	19.9	70250		115.0	24.6	11		-10.5	-9.2		
015	f	11	appendicitis	0d (18h)	36.4	0.8	63936		36.7	0.2	7		-0.2	-0.6			69.5	9.1	63936		66.0		1		3.5	5.3		
016	f	14	appendicitis	0d (19h)	35.0	1.4	67607		37.1	0.8	15		-2.0	-5.5			72.3	11.2	67607		92.3	13.0	4		-20.0	-21.6		
017	m	7	appendicitis	0d (17h)	35.3	1.1	60474		37.0	0.4	7		-1.7	-4.6			93.0	16.1	60474						0			
019	f	4	osteomyelitis	0d (23h)	35.4	0.6	29281		36.8	0.4	6		-1.4	-3.8			111.5	16.3	29281		80.0		1		31.5	39.4		

020	m	6	appendicitis	2d (55h)	35.5	1.8	107073	37.7	0.7	38	-2.2	-5.8	113.8	17.7	107073	110.4	14.4	14	3.4	3.1	97.2	1.7	3288	98.7	0.7	9	-1.4	-1.4					
021	m	15	appendicitis	0d (17h)	35.4	0.9	61246	36.6	0.2	5	-1.3	-3.5	52.2	9.3	61246			0			97.1	1.4	44741			0							
Mean												-1.7	-4.6	Mean												-2.5	-1.7	Mean				-0.4	-0.4
STD												0.6	1.7	STD												12.3	14.3	STD				1.5	1.5

¹ Abbreviations: Abs, absolute; rel, relative; d, days; h, hours; f, female; m, male; STD (std), standard deviation

Figure S1. Everion® device, worn by a 3-year-old child.

