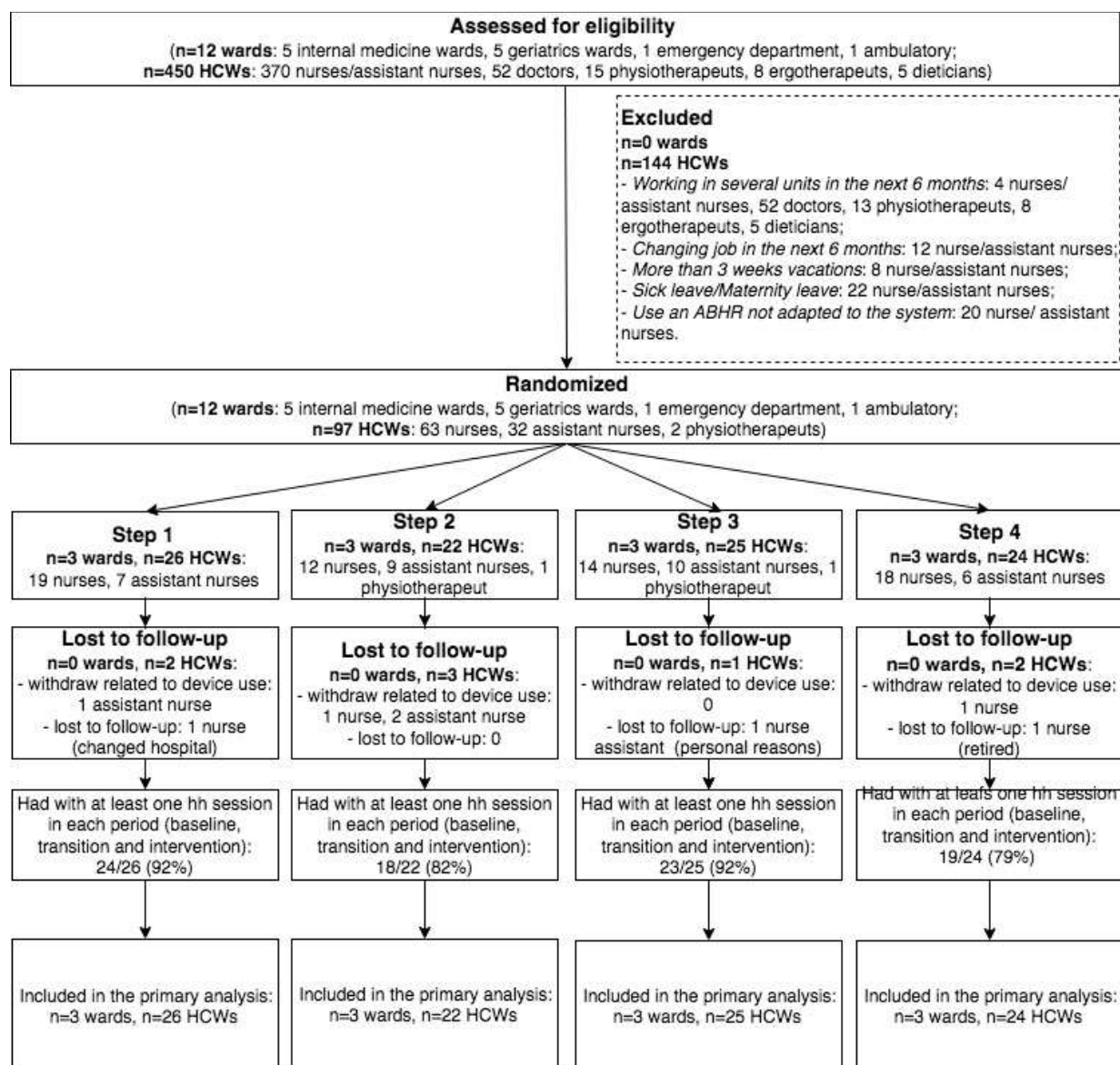


## Basic results regarding the study registry ISRCTN25430066

### Participant Flowchart:



## Baseline Characteristics :

	Step 4 (1 month of intervention)	Step 3 (2 months)	Step 2 (3 months)	Step 1 (4 months)
Wards	(n=3)	(n=3)	(n=3)	(n=3)
Type of ward, n (%)				
Ambulatory	0 (0.0)	0	0	1 (33.3)
Geriatric	2 (66.7)	1 (33.3)	2 (66.7)	1 (33.3)
Medical	1 (33.3)	1 (33.3)	1 (33.3)	1 (33.3)
Emergency	0	1 (33.3)	0	0
Number of inpatient beds	80	59	93	57
Number of HCWs working in patient care	93	93	107	77
Healthcare workers	(n=24)	(n=25)	(n=22)	(n=26)
Gender, n (%)				
Women	20 (83.3)	23 (92.0)	18 (81.8)	19 (73.1)
Men	4 (16.7)	2 (8.0)	4 (18.2)	7 (26.9)
Mean age (±SD, median)	41.9 (±12.2, 43)	40.2 (±12.6, 39)	44.6 (±9.2, 45)	41.6 (±11.2, 41.5)
Professional categories, n (%)				
Nurses	18 (75.0)	14 (56.0)	12 (54.5)	19 (73.1)
Aux. Nurses	6 (25.0)	10 (40.0)	9 (40.9)	7 (26.9)
Physio.	0 (0.0)	1 (4.0)	1 (4.6)	0 (0.0)
Part-time work, n (%)	14 (58.3)	15 (62.5)	14 (63.6)	12 (46.1)
Mean experience duration in years (±SD, median)	17.9 (±12.5, 22)	13.6 (±11.4, 11.5)	20.2 (±10.7, 20)	17.2 (±11.9, 18)
Mean delay since last HH training (±SD, median)	5.8 (±5.4, 3)	2.2 (±2.5, 2)	3.9 (±5.2, 1)	3.0 (±4.2, 1)
Category of hand size, n (%)				
Small	13 (54.2)	19 (76.0)	11 (50.0)	11 (42.3)
Medium	5 (20.8)	5 (20.0)	6 (27.3)	6 (23.1)
Big	6 (25.0)	1 (4.0)	5 (22.7)	9 (34.6)
Mean hand size in cm <sup>2</sup> (±SD, median)	376.7 (±56.6, 371.6)	359.0 (±43.4, 358.5)	377.8 (±58.3, 375.6)	394.2 (±57.4, 384.5)
Type of ABHR, n (%)				
Rinse	17 (70.8)	11 (44.0)	11 (50.0)	16 (61.5)
Gel	7 (29.2)	14 (56.0)	11 (50.0)	10 (38.5)

## Primary Outcome Measures:

	Step 4 (1 mo)	Step 3 (2 mo)	Step 2 (3 mo)	Step 1 (4 mo)
Total number of opportunities	1932	1731	1229	1986
Total number of actions	1107	1180	847	1362
Overall compliance to HH (95%CI), %	57.3 (55.1-59.5)	68.2 (65.9-70.4)	68.9 (66.2-71.5)	68.6 (66.5-70.6)
N opportunities per period, n (%)				
Baseline	1210	848	381	229
Transition	378	332	318	394
Intervention	344	551	530	1363
N actions per period, n (%)				
Baseline	707	612	277	181
Transition	213	224	229	299
Intervention	187	344	341	882
Observed HH compliance per period (95%CI), %				
Baseline	58.4 (55.6-61.2)	72.2 (69.0-75.2)	72.7 (67.9-77.1)	79.0 (73.2-84.1)
Transition	56.3 (51.2-61.4)	67.5 (62.1-72.5)	72.0 (66.7-76.9)	75.9 (71.4-80.0)
Intervention	54.4 (48.9-59.7)	62.4 (58.2-66.5)	64.3 (60.1-68.4)	64.7 (62.1-67.2)

□ :

## Description of secondary outcome (volume of ABHR used) by cluster.

	Step 4 (1 mo)	Step 3 (2 mo)	Step 2 (3 mo)	Step 1 (4 mo)
N of observations recorded	5'220	11'820	15'892	32'886
Transition	2'747	6'317	7'319	10'139
Intervention	2'473	5'503	8'573	22'747
Mean volume of AHBR (±SD, range)				
Transition	1.29 (±0.88, 0.38-9.08)	1.26 (±0.79, 0.38-14.08)	1.84 (±1.75, 0.38-45.38)	1.20 (±0.75, 0.38-16.65)
Intervention	1.97 (±1.21, 0.39-9.77)	1.69 (±1.37, 0.38-42.48)	2.25 (±1.75, 0.38-41.13)	1.99 (±1.15, 0.38-19.8)
Number of HCW participating				
Transition	21	23	20	26
Intervention	21	22	18	26
Mean volume of ABHR estimated per HCW before the study implementation (±SD, range)	2.50 (±0.55, 1.69-3.56)	2.26 (±0.22, 1.86-3.02)	2.47 (±0.48, 1.81-3.64)	2.58 (±0.45, 2.01-3.30)
Overall correctness of AHBR use* (95%CI, %)				
Transition	10.2 (9.1-11.3)	11.5 (10.7-12.3)	18.1 (17.3-19.0)	3.7 (3.3-4.1)
Intervention	35.3 (33.4-37.2)	24.6 (23.4-25.7)	32.6 (31.6-33.6)	30.6 (30.0-31.2)

Description of secondary outcome (volume of ABHR used) by cluster.

	Step 4 (1 mo)	Step 3 (2 mo)	Step 2 (3 mo)	Step 1 (4 mo)
N of observations recorded	5'220	11'820	15'892	32'886
Transition	2'747	6'317	7'301	10'138
Intervention	2'473	5'496	8'570	22'744
Mean volume of AHBR ( $\pm$ SD, range)				
Transition	1.29 ( $\pm$ 0.88, 0.38-9.08)	1.26 ( $\pm$ 0.79, 0.38-14.08)	1.79 ( $\pm$ 1.41, 0.38-14.91)	1.20 ( $\pm$ 0.73, 0.38-11.99)
Intervention	1.97 ( $\pm$ 1.21, 0.39-9.77)	1.66 ( $\pm$ 1.04, 0.38-13.89)	2.17 ( $\pm$ 1.42, 0.38-14.68)	1.99 ( $\pm$ 1.14, 0.38-14.35)
Number of HCW participating				
Transition	21	23	20	26
Intervention	21	22	18	26
Mean volume of ABHR estimated per HCW before the study implementation ( $\pm$ SD, range)	2.50 ( $\pm$ 0.55, 1.69-3.56)	2.26 ( $\pm$ 0.22, 1.86-3.02)	2.47 ( $\pm$ 0.48, 1.81-3.64)	2.58 ( $\pm$ 0.45, 2.01-3.30)
Overall correctness of AHBR use* (95%CI, %)				
Transition	10.2 (9.1-11.3)	11.5 (10.7-12.3)	18.1 (17.3-19.0)	3.7 (3.3-4.1)
Intervention	35.3 (33.4-37.2)	24.6 (23.4-25.7)	32.6 (31.6-33.6)	30.6 (30.0-31.2)

**Adverse Events:**

Three healthcare workers reported adverse events related to the use of the device that led to withdrawal from the study (n=2 skin dryness and n=1 itching related to bracelet use that resolved after stop using it).