



Appendix 1 - Timeline of the educational test process of SBAR at CHR Citadelle Liège. The pilot phase established the SBAR model as the institutional communication tool. The curriculum was tested from May to November 2018 into various and specific departments (MICU, rehabilitation and geriatrics).

HES factor	MICU			Geriatrics		
	Baseline	Follow-up	Change score	Baseline	Follow-up	Change score
Quality of information	63.92 ± 6.32 [67.59 - 70.25]	69.04 ± 7.05 [61.99 - 76.09]	5.12	67.62 ± 12.31 [55.31 - 79.93]	76.78 ± 14.96 [61.82 - 91.74]	9.16
Interaction and support	61.81 ± 8.48 [53.33 - 70.29]	67.34 ± 8.08 [59.26 - 75.42]	5.53	67.85 ± 9.56 [58.29 - 77.41]	67.34 ± 18.43 [48;91 - 85.77]	-0.51
Relevance of information	52.47 ± 7.61 [44.86 - 60.08]	55.1 ± 11.93 [43.17 - 67.03]	2.86	48.57 ± 15.76 [32.81 - 64.32]	62.5 ± 10.94 [51.56 - 73.44]	13.93
Efficiency	56.59 ± 7.87 [48.72 - 64.46]	70.91 ± 8.78 [62.13 -79.69]	14.32*	60.71 ± 11.61 [49.09 - 72.32]	65.18 ± 11.70 [53.48 - 76.88]	4.47
HES factor	Rehabilitation 1			Rehabilitation 2		
	Baseline	Follow-up	Change score	Baseline	Follow-up	Change score
Quality of information	71.16 ± 6.82 [64.34 - 77.98]	74.29 ± 5.96 [67.59 - 70-25]	3.13	75.51 ± 6.97 [68.54 - 82.47]	75.51 ± 19.43 [56.07 - 94.94]	0
Interaction and support	81.95 ± 6.06 [75.89 - 88.01]	80.71 ± 6.80 [73.91 - 87.51]	-1.24	73.47 ± 8.94 [64.53 - 82.41]	71.94 ± 25.18 [46.75 - 97.13]	-1.53
Relevance of information	49.62 ± 8.55 [41.07 - 58.17]	59.04 ± 12.00 [47.04 - 71.04]	9.42	59.52 ± 8.31 [51.21 - 67.83]	75.51 ± 14.20 [61.31 - 89.71]	15.99*
Efficiency	53.01 ± 7.55 [45.46 - 60-56]	57.14 ± 5.98 [51.16 - 63.12]	4.13	66.32 ± 7.77 [58.55 - 74.09]	62.24 ± 18.57 [43.67 - 80.81]	-4.08

*Significant difference at $P < 0.05$

Appendix 2. Statistics for the HES factors at baseline, follow-up, and change from baseline to follow-up [Mean, 95% confidence interval (CI) and lower and upper limits (LL – UL)] in the four units.

Appendix 3. Statistics for every HES items at baseline, follow-up and change from baseline to follow-up [percentages, mean, mean 95 % confidence interval (CI)] in the four units.

		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS	
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
The information that I receive is up to date	Percent agree (5-7)	73.40%	77.27%	65.38%	78.57%	79.00%	73.33%	80.95%	85.71%	0.70%	0.75%
	Mean	5.23	5.36	5	5.14	5.22	5.26	5.57	5.85	5.1	5.5
	Mean 95 CI	0.31	0.31	0.57	0.44	0.65	0.61	0.70	1.24	0.63	0.89
	N	75	44	26	14	18	15	21	7	10	8
	<i>Mann-Whitney U test</i>	0.9294		0.9413		0.6505		0.6744		0.3946	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS	
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I am provided with sufficient information about patients	Percent agree	63.15%	79.54%	61.53%	78.57%	68.42%	80%	66.70%	71.42%	50%	87.50%
	Mean	4.77	5.22	4.53	5.21	5	5.33	5.05	4.85	4.4	5.37
	Mean 95 CI	0.34	0.39	0.61	0.69	0.75	0.50	0.62	1.80	1.13	1.26
	N	76	44	26	14	19	15	21	7	10	8
	<i>Mann-Whitney U test</i>	0.08528		0.1504		0.8418		0.9106		0.128	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS	
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I am able to clarify information that has been provided	Percent agree	72.37%	84.09%	77%	93%	63.15%	86.67%	71.42%	71.42%	80%	75%
	Mean	5.12	5.36	4.8	5.21	5.41	5.46	5.09	5.57	5.5	5.25
	Mean 95 CI	0.30	0.32	0.54	0.33	0.60	0.51	0.64	1.50	0.69	1.32
	N	74	44	26	14	17	15	21	7	10	8

		<i>Mann-Whitney U test</i>		0.458		0.4708		0.8891		0.4133		1	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
The way in which information is provided to me is easy to follow	Percent not agree**	53.94%	65.90%	30.77%	42.86%	63.15%	73.33%	66.66%	71.42%	70%	87.50%		
	Mean	4.59	4.79	3.88	4.14	4.79	5	5.24	5.14	4.7	5.25		
	Mean 95 CI	0.32	0.41	0.60	0.75	0.47	0.42	0.54	1.88	1.22	1.16		
	N	76	44	26	14	19	15	21	7	10	8		
		<i>Mann-Whitney U test</i>		0.3492		0.5901		0.5947		0.678		0.327	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I feel that important information is not always given to me	Percent agree	38.15%	47.70%	34.61%	35.71%	47.36%	46.67%	28.57%	85.71%	50%	37.50%		
	Mean	3.77	4.34	3.73	3.92	3.84	4.27	3.9	5.42	3.5	4.25		
	Mean 95 CI	0.39	0.54	0.63	1.00	0.87	1.01	0.76	1.50	1.52	1.46		
	N	76	44	26	14	19	15	21	7	10	8		
		<i>Mann-Whitney U test</i>		0.08272		0.718		0.5736		0.066		0.496	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I am able to keep my mind focused on the information being given to me	Percent agree	63.15%	52.27%	53.84%	28.57%	57.90%	60%	71.40%	57.14%	80%	75%		
	Mean	4.76	4.54	4.11	3.64	5.1	5	5.14	4.42	5	5.37		
	Mean 95 CI	0.34	0.51	0.57	0.77	0.60	0.72	0.79	2.12	0.89	1.41		
	N	76	44	26	14	19	15	21	7	10	8		

		<i>Mann-Whitney U test</i>		0.5106		0.2892		0.8439		0.6199		0.3784	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I have the opportunity to debrief with other colleagues when I have had a difficult shift	Percent agree	57.90%	72.70%	50%	75.57%	63.15%	86.67%	76.19%	85.71%	30%	25%		
	Mean	4.75	5.3	4.23	5.35	5.26	5.733	5.24	5.57	4.1	4		
	Mean 95 CI	0.43	0.46	0.82	0.84	0.83	0.44	0.85	2.06	0.86	1.41		
	N	76	43	26	14	19	15	21	7	10	7		
		<i>Mann-Whitney U test (p-value)</i>		0.1726		0.0975		0.824		0.453		0.8787	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I have the opportunity to discuss workload issues	Percent agree	51.31%	56.81%	34.61%	35.71%	78.94%	86.67%	52.38%	57.14%	40%	37.50%		
	Mean	4.52	4.41	3.81	3.42	5.79	5.53	4.38	4.28	4.3	4.14		
	Mean 95 CI	0.42	0.57	0.76	1.08	0.59	0.59	0.91	2.31	1.01	1.24		
	N	76	43	26	14	19	15	21	7	10	7		
		<i>Mann-Whitney U test</i>		0.7249		0.6145		0.341		0.935		0.798	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I have the opportunity to discuss difficult clinical situation I have experienced	Percent agree	65.70%	75.00%	50%	71.42%	84.21%	86.67%	66.67%	71.42%	70%	62.50%		
	Mean	4.94	5.0	4.11	4.5	5.84	5.6	5.09	4.71	5.1	5		
	Mean 95 CI	0.37	0.51	0.73	0.87	0.49	0.58	0.75	2.49	0.86	1.51		
	N	76	43	26	14	19	15	21	7	10	7		

		<i>Mann-Whitney U test</i>		0.945		0.5025		0.4664		1		1	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I am educated to different aspects of nursing care	Percent agree	84.21%	90.90%	80.76%	92.85%	84.21%	93.33%	95.20%	85.71%	70%	87.50%		
	Mean	5.7	5.88	5.46	5.71	5.78	5.93	6	6	5.5	6		
	Mean 95 CI	0.29	0.36	0.49	0.42	0.57	0.61	0.61	2.06	1.13	0.75		
	N	76	43	26	14	19	15	21	7	10	7		
	<i>Mann-Whitney U test</i>	0.4878		0.562		0.7705		0.25		0.7975			
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I have the opportunity to ask question about things I do not understand	Percent agree	84.21%	84.09%	73.07%	85.71%	94.70%	86.67%	90.47%	71.42%	80%	87.50%		
	Mean	5.62	5.66	5.15	5.57	6.05	5.73	5.85	5.57	5.5	5.75		
	Mean 95 CI	0.27	0.43	0.48	0.62	0.34	0.64	0.61	2.12	0.97	1.39		
	N	76	44	26	14	19	15	21	7	10	8		
	<i>Mann-Whitney U test</i>	0.5341		0.249		0.488		0.5902		0.5499			
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I find handover takes too much time	Percent not agree**	31.50%	38.60%	26.92%	64.28%	15.70%	20%	47.60%	42.85%	40%	25%		
	Mean	3.75	3.77	3.65	4.71	2.53	2.80	4.57	3.85	4.6	3.87		
	Mean 95 CI	0.44	0.57	0.70	1.12	0.84	0.87	0.95	1.80	0.97	1.44		
	N	76	44	26	14	19	15	21	7	10	8		

		<i>Mann-Whitney U test</i>		0.9012		0.08132		0.5918		0.404		0.4829	
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
I am often given information during handover that is not relevant to patient care	Percent not agree**	28.94%	43.18%	26.92%	35.71%	15.79%	33.33%	47.61%	71.42%	20%	50%		
	Mean	3.67	4.2	3.61	3.78	3.11	4	4.42	5.14	3.3	4.5		
	Mean 95 CI	0.36	0.49	0.68	1.02	0.62	0.81	0.71	1.45	1.01	1.34		
	N	76	44	26	14	19	15	21	7	10	8		
	<i>Mann-Whitney U test</i>	0.08555		0.8397		0.08227		0.2532		0.1433			
		4 units		MICU		REHABILITATION 1		REHABILITATION 2		GERIATRICS			
		Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.	Pre-interv.	Post-interv.
Patient information is provided in a timely fashion	Percent agree	51.31%	79.55%	38.40%	78.57%	63.15%	80%	66.67%	71.42%	30%	87.50%		
	Mean	4.5	5.16	4.27	5.21	4.89	5.2	4.71	4.85	3.9	5.25		
	Mean 95 CI	0.34	0.40	0.60	0.76	0.60	0.43	0.65	1.88	1.32	1.32		
	N	76	44	26	14	19	15	21	7	10	8		
	<i>Mann-Whitney U test</i>	0.01203*		0.041*		0.5246		0.5424		0.08485			

* Significant difference at P<0.05

** % not agree because item was revers coded