

Online table 5: Drug-related problems in controls and intervention group (Matched Pairs-Population)

			Intervention group (n=188)		Control group (n=188)		
outcome variable	Time	Value	N	%*	n	%*	p-value (McNemar)
PRISCUS-PIM (≥1)	admission	no	124	66.0%	136	72.3%	
		yes	64	34.0%	52	27.7%	0.14
	discharge	no	159	84.6%	142	75.5%	
		yes	29	15.4%	46	24.5%	0.027
Drug prescribed without indication (≥1)	admission	no	41	21.8%	58	30.9%	
		yes	147	78.2%	130	69.2%	0.059
	discharge	no	119	63.3%	64	34.0%	
		yes	69	36.7%	124	66.0%	< 0.001
	admission	no	154	81.9%	156	83.0%	

adverse drug reaction ( $\geq 1$ )		yes	34	18.1%	32	17.0%	0.796
	discharge	no	182	96.8%	148	78.7%	
		yes	6	3.2%	40	21.3%	< 0.001
drug-drug-interaction ( $\geq 1$ )	admission	no	158	84.0%	160	85.1%	
		yes	30	16.0%	28	14.9%	0.773
	discharge	no	160	85.1%	158	84.0%	
		yes	28	14.9%	30	16.0%	0.763
Primary outcome variable:	admission	no	25	13.3%	44	23.4%	
		yes	163	86.7%	144	76.6%	0.015
	discharge	no	88	46.8%	44	23.4%	
		yes	100	53.2%	144	76.6%	< 0.001

\* The percentages refer to the number of non-missing values of the row variables within the groups and times (column sum per row variable = 100%).

**Online table 6: Detailed results of the medication appropriateness index**

MAI-question (average $\pm$ standard deviation per patient)	full analysis set					p-value (comparison of the values at discharge between intervention and control group)	
	Intervention group (n=209)		Control group (n=202)				
	Admission	Discharge	Admission	Discharge			
1. Indication	3.47 $\pm$ 3.03	1.42 $\pm$ 2.24	3.16 $\pm$ 3.04	2.68 $\pm$ 2.69	<0.001		
2. Effectiveness	5.22 $\pm$ 5.08	2.44 $\pm$ 3.29	4.50 $\pm$ 4.60	4.51 $\pm$ 4.87	<0.001		
3. Dosage	12.14 $\pm$ 9.20	4.23 $\pm$ 5.07	7.92 $\pm$ 8.19	6.49 $\pm$ 6.61	<0.001		

4. Correct directions	$4.86 \pm 4.17$	$1.76 \pm 2.43$	$4.00 \pm 3.42$	$3.88 \pm 3.47$	<0.001
5. Practical directions	$1.47 \pm 1.59$	$0.67 \pm 1.14$	$1.37 \pm 1.52$	$1.58 \pm 1.70$	<0.001
6. Drug-drug interaction	$14.68 \pm 13.61$	$9.20 \pm 9.53$	$12.79 \pm 12.42$	$13.11 \pm 12.89$	<0.001
7. Drug-disease interaction	$6.88 \pm 6.90$	$2.45 \pm 3.74$	$4.46 \pm 6.27$	$5.06 \pm 6.64$	<0.001
8. Duplication	$3.09 \pm 5.97$	$0.83 \pm 2.60$	$1.74 \pm 4.23$	$1.51 \pm 3.72$	0.066
9. Duration	$4.52 \pm 4.02$	$1.90 \pm 2.77$	$3.28 \pm 3.55$	$4.28 \pm 4.40$	<0.001
Overall per patient	$56.34 \pm 33.84$	$24.92 \pm 18.39$	$43.21 \pm 29.25$	$43.13 \pm 30.62$	<0.001

