## **Supplementary Appendix**

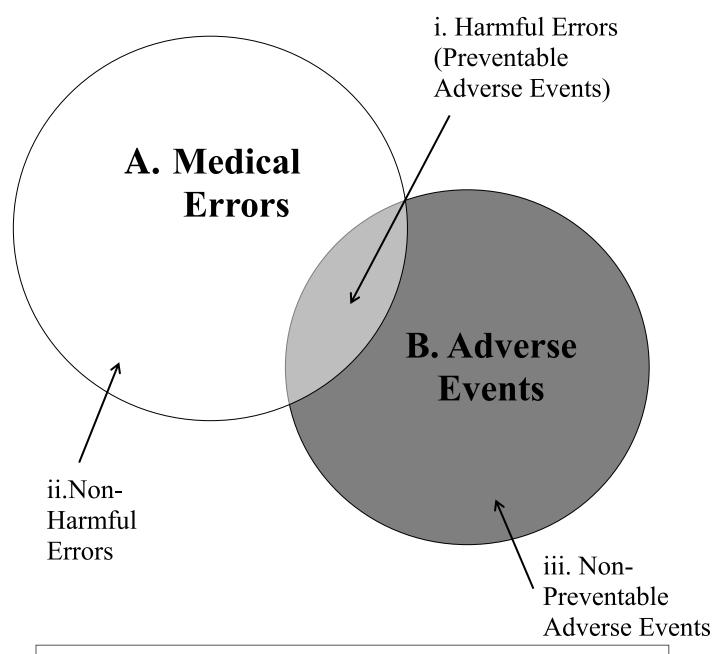
Supplement to: Khan A, Spector ND, Baird JD, for the Patient and Family Centered I-PASS Study Group. Patient safety before and after implementation of a co-produced family-centered communication program: a multicenter pre-post intervention study. *The BMJ*. 2018. doi:10.1136/bmj.k4764

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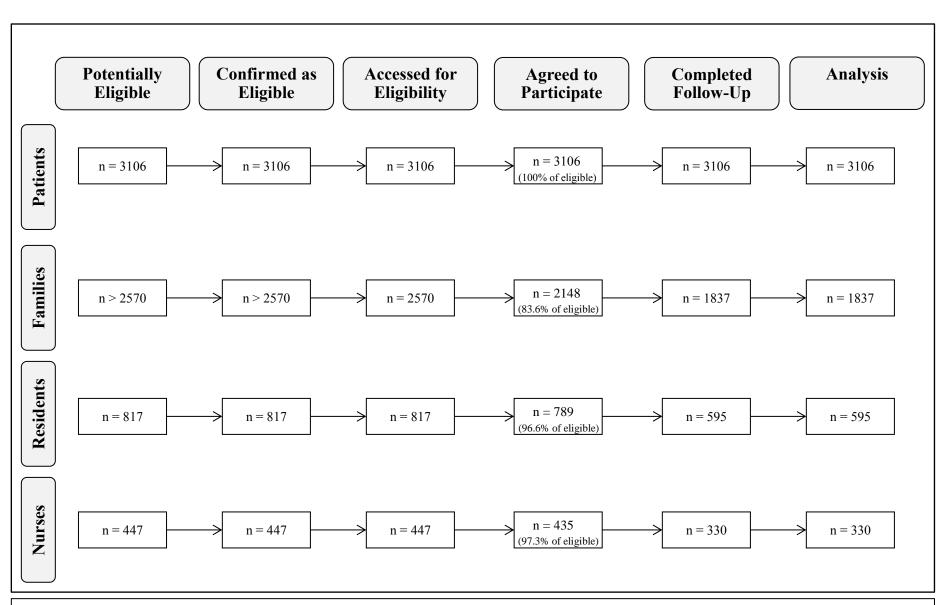
Supplementary Table 1. Medical Errors and Adverse Events Before and After Implementation of Patient and Family Centered I-PASS Excluding Incidents Uniquely Captured through Family Safety Interviews

	Bef	ore Implementation (n=1574)		After Implementation (n=1532)	P value
Incident Type	Noa	Rate <sup>b</sup> (95% CI)	Noa	Rate <sup>b</sup> (95% CI)	
Overall medical errors	229	36.4 (26.9 to 49.1)	215	31.4 (23.1 to 42.8)	0.22
Non-harmful errors	122	17.4 (11.0 to 27.4)	147	19.7 (13.1 to 29.6)	0.44
Harmful errors/Preventable	107	18.3 (13.3 to 25.3)	68	10.7 (7.2 to 16.1)	0.01
adverse events					
Non-preventable adverse events	69	12.2 (8.5 to 17.4)	30	5.0 (3.0 to 8.6)	0.003
Abbreviation: aNumber of incidents; bI	Per 1000 patie	nt-days			



## **Supplementary Figure 1. Medical Errors and Adverse Events**

- A. Medical errors are defined as failures in care processes (e.g., administering penicillin to patient with known penicillin allergy). These include those that lead to (i) harm [harmful error; also known as preventable adverse event] or (ii) no harm [nonharmful error]). Thus, medical errors represent the sum of both the subset of harmful errors (i) (also known as preventable adverse events; gray overlapping region) and non-harmful errors (ii).
- B. Adverse events are defined as harms to patients due to medical care (e.g., anaphylaxis after receiving penicillin). These include those that are (i) due to a medical error (e.g., anaphylaxis after receiving penicillin in a patient with a known penicillin allergy) [preventable adverse event] or (iii) not due to a medical error (e.g. anaphylaxis after receiving penicillin in a patient with no previously known drug allergies)[non-preventable adverse event]. Thus adverse events represent the sum of preventable adverse events (i.e., harmful errors; gray overlapping region, i) and non-preventable adverse events (iii). Adverse events that occur without clear precipitating medical errors were rated as non-preventable.



Supplementary Figure 2. Participant Flow by Type for Prospective Multicenter Intervention Study, 2014-2017