

APPENDIX

Table A1. Search strategy

Database	Search strategy	Number of records
PubMed	("Patient Readmission"[Mesh]) AND "Economic Competition"[Mesh]	5
EmBase	(exp competition/ OR Herfindahl-Hirschman Index.mp. OR Hirschman-Herfindahl Index.mp) AND exp hospital readmission/	21
Wiley Online Library	"hospital" in Abstract and "competition OR "market concentration" OR "Herfindahl-Hirschman Index" OR "Hirschman-Herfindahl Index" OR "Herfindahl-Hirschman Index" OR HHI" in Abstract and "readmission OR re-admission" in Abstract	99
Web of science	(TS=(health* market) OR TS=(health* institution) OR TS=(hospital)) AND (TS=(Competition) OR TS=(Market concentration)) AND (TS=(readmission) OR TS=(re-admission))	51
Scopus	(TITLE-ABS-KEY(Competition) OR TITLE-ABS-KEY(Market concentration) OR TITLE-ABS-KEY(Herfindahl-Hirschman Index) OR TITLE-ABS-KEY(Hirschman-Herfindahl Index) OR TITLE-ABS-KEY(Herfindahl-Hirschman Index) OR TITLE-ABS-KEY(HHI)) AND (TITLE-ABS-KEY(health* market) OR TITLE-ABS-KEY(health* institution) OR TITLE-ABS-KEY(hospital)) AND (TITLE-ABS-KEY(readmission) OR TITLE-ABS-KEY(re-admission))	59
JSTOR	(((((health* market) OR (health* institution) OR hospital) AND (competition OR (market concentration) OR (Herfindahl-Hirschman Index) OR (Hirschman-Herfindahl Index) OR (Herfindahl-Hirschman Index) OR HHI)) AND (readmission OR re-admission))	726

Table A2. Items of Appraisal tool for Cross-Sectional Studies (AXIS)

	Question	Yes/No/Don't know
Introduction		
1	Were the aims/objectives of the study clear?	
Methods		
2	Was the study design appropriate for the stated aim(s)?	
3	Was the sample size justified?	
4	Was the target/reference population clearly defined? (Is it clear who the research was about?)	
5	Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?	
6	Was the selection process likely to select subjects/participants that were representative of the target/reference population under investigation?	
7	Were measures undertaken to address and categorise non-responders?	
8	Were the risk factor and outcome variables measured appropriate to the aims of the study?	
9	Were the risk factor and outcome variables measured correctly using instruments/measurements that had been trialled, piloted or published previously?	
10	Is it clear what was used to determine statistical significance and/or precision estimates? (e.g., p-values, confidence intervals)	
11	Were the methods (including statistical methods) sufficiently described to enable them to be repeated?	
Results		
12	Were the basic data adequately described?	
13	Does the response rate raise concerns about non-response bias?	
14	If appropriate, was information about non-responders described?	
15	Were the results internally consistent?	
16	Were the results presented for all the analyses described in the methods?	
Discussion		
17	Were the authors' discussions and conclusions justified by the results?	
18	Were the limitations of the study discussed?	
Other		
19	Were there any funding sources or conflicts of interest that may affect the authors' interpretation of the results?	
20	Was ethical approval or consent of participants attained?	

Note: This critical appraisal tool was developed by Downes MJ et al. (2016)¹.

Table A3. Appraisal for included studies using AXIS tool

Author and year	Introd uction	Methods										Results					Discussion		Other		AXIS Score /20
	1	2	3	4	5	6	7	8	9	10	11	12	13*	14	15	16	17	18	19*	20	
Palangkaraya et al 2013	Y	Y	Y	Y	DK	DK	N	Y	N	Y	Y	Y	N	N	Y	Y	Y	Y	DK	Y	14
Kim et al 2015	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N	Y	18
Kim et al 2016	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	N	Y	Y	Y	Y	N	Y	17
Liao et al 2018	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	N	Y	Y	Y	Y	N	Y	17
Ho et al 2000	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	20
Dunn et al 2018	Y	Y	Y	Y	DK	DK	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	DK	Y	15
Kessler et al 2000	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	20
Kessler et al 2005	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	DK	Y	18
Chou et al 2014	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N	Y	19
Mean																					17.6
SD																					1.9

Note: Y="Yes", N="No", DK="Don't know". Items in red are those that missed criteria.

*Item is reverse scored (i.e., no is a positive)

Reference

1. Downes MJ, Brennan ML, Williams HC, Dean RS. Development of a critical appraisal tool to assess the quality of cross-sectional studies (AXIS). *BMJ Open*. 2016;6(12):e011458. doi:10.1136/bmjopen-2016-011458