Health Economics Unit

Appendix

The data presented in summary tables 2–17 have been condensed substantially from what was reported in the papers. For each table there is one row per paper, detailing the setting and population samples in the study, and the outcomes reported according to whether the data were in favour of a single-room design, a shared-room design, or neither in favour nor against either design. Where statistical analyses were conducted the statistical significance is reported in the tables however no other numerical data is presented. Where no formal analysis was reported only the label pertaining to the outcome data are presented. For example, if the proportion of deaths was lower in the single-room design then "% deaths" is reported in the table under the heading "Data favours single-room design", or if qualitative analysis of interviews reports that patients would prefer a shared-room design because is it more sociable then "Qualitative (patient preference, social)" is reported in the table under the heading "Data favours shared-room design".

List of tables

!

Health Economics Unit

Key and abbreviations
[a]=adjusted
[u]=univariate analysis
[m]=multivariate analysis
NS=not statistically significant (p<0.05 is considered statistically significant)
BSI, bloodstream infection; LOS=length of stay; PEMR=physician estimate of mortality risk; SFR=Single family room; SRMC=Single room maternity care

Text is in italics if it is unclear where the true benefit lies, for example where the data is significantly greater for one room type compared to another but the interpretation of benefit may be subjective.

Cells coloured in blue are where a formal comparative statistical analysis was reported.

Table 1. Summary of study quality scores

Citation	Study methodology	QA score
Adamson 2003[1]	SLR	82%
Anåker et al 2017[2]	Prospective observational, before and after hospital relocation	59%
Anåker et al 2019[3]	Qualitative, before and after hospital relocation	90%
Apple 2014[4]	Prospective observational, qualitative	52%
Bevan et al 2016[5]	Prospective observational	59%
Blandfort et al 2019[6]	Prospective observational, before and after hospital relocation	67%
Blandfort et al 2019[7]	Prospective observational, before and after hospital relocation	67%
Boardman & Forbes 2011[8]	Economic analysis	91%
Bocquet et al 2021[9]	Retrospective observational, case-control	74%
Bodack et al 2016[10]	Prospective observational	56%
Bonizzoli et al 2011[11]	Retrospective observational, before and after hospital relocation	30%
Boztepe et al 2017[12]	Prospective observational	63%
Bracco et al 2007[13]	Prospective observational	74%
Bradbury-Jones et al 2013[14]	SLR	86%
Campbell-Yeo et al 2021[15]	Prospective case–control, before and after hospital relocation	74%
Cantoni et al 2009[16]	Retrospective observational, before and after hospital relocation	67%
Carlson et al 2006[17]	Prospective observational, before and after hospital relocation	33%
Carter et al 2008[18]	Prospective observational, before and after hospital relocation	33%
Caruso et al 2014[19]	Retrospective observational	74%
Cobo et al 2001[20]	Retrospective case–control	74%

Health Economics Unit

Curtis & Northcott 2017[21]	Qualitative, before and after hospital relocation	80%
Cusack et al 2019[22]	Observational before hospital relocation	56%
Darcy Mahoney et al 2020[23]	Prospective observational	59%
Darley et al 2018[24]	Retrospective observational, before and after hospital relocation	56%
Davis et al 2019[25]	Retrospective observational, before and after hospital relocation	67%
Deitrick et al 2010[26]	Qualitative	90%
de Matos et al 2020[27]	Prospective observational	63%
Domanico et al 2010[28]	Prospective observational, before and after hospital relocation	63%
Domanico et al 2011[29]	Prospective observational, before and after hospital relocation	63%
Douglas & Douglas 2005[30]	Qualitative	90%
Dowdeswell et al 2004[31]	SLR	36%
Dowling et al 2012[32]	Prospective case–control, before and after hospital relocation	63%
Eberhard-Gran et al 2000[33]	Prospective case–control	59%
Edéll-Gustafsson et al 2015[34]	Qualitative	90%
Ehrlander et al 2009[35]	Retrospective observational	78%
Erdeve et al 2008[36]	Prospective case–control	74%
Erdeve et al 2009[37]	Prospective case–control	78%
Erickson et al 2011[38]	Prospective observational before and after hospital relocation	67%
Everts et al 1996[39]	Prospective observational	52%
Felice Tong et al 2018[40]	Retrospective case–control	78%
Ferri et al 2015[41]	Qualitative, before and after hospital relocation	100%
Florey et al 2009[42]	Retrospective case–control, before and after hospital relocation	44%
Foo 2022 et al[43]	Prospective observational	74%
Ford-Jones et al 1990[44]	Prospective observational	52%
Fraenkel et al 2018[45]	Retrospective case-control	67%
Gregersen et al 2021[46]	Retrospective observational, before and after hospital relocation	70%
Grundt et al 2021[47]	Prospective case-control	67%
Halaby et al 2017[48]	Retrospective observational, before and after hospital relocation	48%
Harris et al 2004[49]	Prospective case–control, before and after hospital relocation	74%
Harris et al 2006[50]	Retrospective observational	63%
Harris et al 2006[51]	Retrospective observational	52%
Hosseini & Bagheri 2017[52]	Prospective observational	63%
Hourigan et al 2018[53]	Prospective observational, before and after hospital relocation	63%
Hyun et al 2021[54]	Retrospective case–control	78%
Jansen et al 2021[55]	Retrospective observational, before and after hospital relocation	63%

Health Economics Unit

Janssen et al 2000[56]	Prospective case–control, before and after hospital relocation	56%
Janssen et al 2006[57]	Prospective observational	59%
Jones et al 2016[58]	Qualitative, before and after hospital relocation	100%
Jongerden et al 2013[59]	Prospective observational, before and after hospital relocation	67%
Jou et al 2015[60]	Retrospective case–control	74%
Julian et al 2015[61]	Retrospective observational	78%
Jung et al 2022[62]	Retrospective observational, before and after hospital relocation	67%
Kainiemi et al 2021[63]	Prospective observational, before and after hospital relocation	59%
Kinnula et al 2008[64]	Prospective observational	63%
Kinnula et al 2012[65]	Prospective observational	67%
Knight & Singh 2016[66]	Prospective observational	59%
Kosuge et al 2013[67]	Prospective observational, before and after hospital relocation	41%
Labarère et al 2004[68]	Prospective observational	70%
Lawson & Phiri 2000[69]	Prospective observational, before and after hospital relocation	41%
Lazar et al 2015[70]	Prospective observational, before and after hospital relocation	48%
Lehtonen et al 2020[71]	Prospective observational	74%
Lester et al 2014[72]	Prospective observational, before and after hospital relocation	63%
Lester et al 2016[73]	Prospective observational, before and after hospital relocation	59%
Liu et al 2019[74]	Qualitative	100%
Lorenz & Dreher 2011[75]	Retrospective case–control	78%
Maben et al 2015[76]	Report, before and after hospital relocation with control hospitals	78%
Maben et al 2016[77]	Prospective observational, before and after hospital relocation with control hospitals	67%
Malcolm 2005[78]	Qualitative	80%
Mattner et al 2007[79]	Prospective observational	74%
McDonald et al 2019[80]	Prospective observational, before and after hospital relocation	48%
McKeown et al 2015[81]	Retrospective observational	48%
Mental Welfare Commission Scotland 1991[82]	Report	30%
Meyer et al 1994[83]	Prospective observational	59%
Milford et al 2008[84]	Prospective observational, before and after hospital relocation	30%
Miller et al 1998[85]	Prospective observational	59%
Monson et al 2018[86]	Prospective case–control	78%
Morgan 2010[87]	Prospective observational	44%
Munier-Marion et al 2016[88]	Prospective observational	74%
Nahas et al 2016[89]	Retrospective observational	56%

Health Economics Unit

Nash et al 2021[90]	Prospective observational/ qualitative	63%
Nassery & Landgen 2019[91]	Qualitative	90%
OECD & World Health Organization 2019[92]	Report	14%
Olson & Smith1992[93]	Prospective observational	52%
O'Neill et al 2018[94]	Retrospective observational	74%
Park et al 2020[95]	Retrospective observational	63%
Pease & Finlay 2002[96]	Prospective observational	48%
Persson & Määttä 2012[97]	Qualitative	90%
Persson et al 2015[98]	Qualitative	90%
Pilmis et al 2020[99]	Prospective observational	63%
Pineda et al 2012[100]	Prospective case–control	70%
Poncette et al 2021[101]	Retrospective observational	56%
Puumala et al 2020[102]	Retrospective observational, before and after hospital relocation	67%
Pyrke et al 2017[103]	Prospective observational, before and after hospital relocation	59%
Quach et al 2018[104]	Retrospective case–control	59%
Real et al 2018[105]	Prospective observational, before and after hospital relocation	56%
Reed & Shmid 1986[106]	Narrative report, before and after hospital relocation	10%
Reid et al 2015[107]	Prospective observational, before and after hospital relocation	48%
Roos et al 2020[108]	Qualitative, before and after hospital relocation	90%
Rosbergen et al 2020[109]	Prospective observational, before and after hospital relocation	74%
Rowlands & Noble 2008[110]	Qualitative	90%
Sadatsafavi et al 2016[111]	Retrospective economic analysis	100%
Sadatsafavi et al 2019[112]	Retrospective economic analysis, before and after hospital relocation	100%
Sakr et al 2021[113]	Prospective observational	74%
Schalkers et al 2015[114]	Qualitative	100%
Scottish Intercollegiate Guidelines Network 2014[115]	Guideline	73%
Singh et al 2015[116]	Retrospective observational, before and after hospital relocation	70%
Singh et al 2016[117]	Prospective observational	70%
Søndergaard et al 2022[118]	SLR	91%
Song et al 2018[119]	Retrospective observational, before and after hospital relocation	63%
Stelwagen et al 2021[120]	Qualitative	100%
Stevens et al 2011[121]	Prospective observational, before and after hospital relocation	52%
Stevens et al 2012[122]	Prospective observational, before and after hospital relocation	44%

Health Economics Unit

Stevens et al 2014[123]	Prospective observational, before and after hospital relocation	56%
Stiller et al 2017[124]	Retrospective observational	59%
Swanson et al 2013[125]	Prospective observational, before and after hospital relocation	37%
Tandberg et al 2018[126]	Prospective observational	70%
Tandberg et al 2019[127]	Prospective case–control	67%
Tandberg et al 2019[128]	Prospective observational	67%
Taylor et al 2018[129]	SLR	91%
Tegnestedt et al 2013[130]	Prospective observational	70%
Teltsch et al 2011[131]	Retrospective case–control, before and after hospital relocation	67%
Toivonen et al 2017[132]	Prospective case–control, before and after hospital relocation	63%
Vaisman et al 2018[133]	Retrospective case–control	67%
van de Glind et al 2008[134]	Prospective observational	74%
van der Hoeven et al 2022[135]	Retrospective observational, before and after hospital relocation	63%
Van Enk & Steinberg 2011[136]	Prospective observational, before and after hospital relocation	44%
van Veenendaal et al 2020[137]	Retrospective observational, before and after hospital relocation	70%
Van Veenendaal et al 2022[138]	Prospective observational	70%
Vietri et al 2004[139]	Prospective case–control, before and after hospital relocation	59%
Vohr et al 2017[140]	Prospective observational, before and after hospital relocation	67%
Voigt et al 2018[141]	SLR	86%
Walsh et al 2006[142]	Prospective observational, before and after hospital relocation	33%
Washam et al 2018[143]	Retrospective case–control	78%
Watson et al 2014[144]	Prospective observational, before and after hospital relocation	44%
Zaal et al 2013[145]	Prospective observational	67%

Quality is graded by colour: green, good; orange, medium; red, poor. Abbreviation: SLR, systematic literature review.

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Table 2. Summary of studies reporting mortality data

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation										
Cantoni 2009[16]	67%	Switzerland	Adults	227 patients, 1 hospital	Stem cell transplant	Elective	Routine		% deaths	
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital	Orthopaedic	Elective	Routine		*p*=0.664	
Domanico 2010,[28] Domanico 2011[29]	63%	United States	Neonates	161 carers, 1 hospital, 2 units	Paediatric	NR	NICU	% deaths		
Jansen 2021[55]	63%	Netherlands	Neonates	712 patients, 1 hospital, 2 units	Premature neonates	Maternity care	NICU		p=0.38 all-cause mortality p=0.96 infection-related mortality	
Jongerden 2013[59]	67%	Netherlands	Adults	323 patients, 1 hospital	Mixed, Adults	Mixed	ICU		p=0.98	
Jung 2022[62]	67%	South Korea	Adults	901 patients, 1 hospital	Mixed	Unclear	ICU		p=0.168	
Lazar 2015[70]	48%	Israel	Children	4162 patients, 1 hospital	Children	Mixed	PICU		p=0.22	
Puumala 2020[102]	67%	United States	Neonates	9995 patients, 1 hospital	Premature neonates	Emergency	NICU			% deaths
Singh 2015[116]	70%	United Kingdom	Adults, Elderly	1749 patients, 1 hospital	Internal medicine, Geriatric	Mixed	Routine		p=0.12 one-year mortality *p*=0.35 inpatient mortality *p*=0.29 30-day discharge mortality	
Contemporaneous comparison										
Bracco 2007[13]	74%	Canada	Adults	2522 patients (of whom 207 known MRS carriers at	Mixed, Post surgery,	Mixed	ICU	*p*<0.001		

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				admission), 1 hospital, 1 ward	Medical admission					
Caruso 2014[19]	74%	Brazil	Adults	1253 patients, 1 hospital	Adults	Mixed	ICU		p=0.18	
Harris 2006[50]	63%	United States	Neonates	21 parents, 75 HCPs, 11 hospitals	Neonates	Emergency	NICU			% deaths
Hyun 2021[54]	78%	South Korea	Adults	666 patients, 1 hospital	Respiratory, COVID-19	Emergency	ICU			% deaths
Julian 2015[61]	78%	United States	Neonates	1823 patients 1 hospital, 1 unit	Neonates	Mixed	NICU		p=0.56 CLOS or mortality	
Knight 2016[66]	59%	United Kingdom	Elderly	100 patients, 2 hospitals	Geriatric, Dementia	Mixed	Routine		p>0.95 inpatient mortality p=0.33 30-day mortality	
Lehtonen 2020[71]	74%	10 countries	Neonates	4662 patients, 331 units	Neonates	Emergency	ICU	OR 0.76, 0.64-0.89, major morbidity or mortality	OR 0.85, 0.70-1.02, mortality only	
Zaal 2013[145]	67%	Netherlands	Older Adults	156 patients 1 hospital	Older Adults with dementia	Mixed	ICU		p=0.72, % deaths	

Health Economics Unit

Table 3. Summary of studies reporting data on patient care and disease management

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed		Medication errors 9 months after the move	Fewer medication errors immediately after the move
Before and after a hospital relocation										
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine	Lower % medical deterioration requiring rapid response or clinical review		
Lawson 2000[69]	41%	United Kingdom	Adults	424 patients, 2 hospitals, 4 wards relocation	Orthopaedic patients	Unclear	Routine	Lower use of painkillers % responders % verbal outbursts % threatening behaviour		
Contemporaneous comparison										
Ehrlander 2009[35]	78%	United States	Adults	117 patients, 1 hospital	Mixed	Unclear	Routine			Qualitative (feelings of safety)
McKeown 2015[81]	48%	Ireland	Unclear	880 patients. 24 hospitals	End of life	Emergency, Elective	Routine	Perceived acceptability of patient's death Symptom management Symptom experience Patient care		
Nahas 2016[89]	56%	United Kingdom	Adults, Elderly	60 patients, 2 hospitals	Orthopaedic (elective hip/ knee arthroplasty)	Elective	Routine	p=0.020, cleanliness p=0.015, staff pain management	p=0.190, toileting help given	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								p<0.001, pain control		
Van de Glind 2008[134]	74%	Netherlands	Adults	52 encounters, 1 hospital	Urology	Unclear	Routine	p=0.003, greater duration of physician-patient encounter % encounter time patient speaks is greater Patients disclose more emotional cues, and information cues p=0.031, more physician responses to the patient cues	% encounter time physician speaks was no different Patients disclose more emotional cues	
Evidence synthesis										
Dowdeswell 2004[31]	SLR 36%	International	Unclear	Unclear	Mixed	Mixed	Mixed	Hospital acquired infection treatment; Hand-hygiene; Cleaning and decontamination; Recovery; In situ medical treatment Family involvement Environment match the patient's progress		
OECD WHO 2019[92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed		Pain scores	
Søndergaard 2022[118]	SLR 91%	International	NR	NR	Acute, Surgical,	Unclear	Routine	Sleep quality Personal control Environment		

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
					Internal medicine			Recovery time		
Taylor 2018[129]	SLR 91%	International	NR	NR	Mixed	Mixed	Mixed			Restraint use e.g., rails
Voigt 2018[141]	SLR 86%	International	NR	NR	NR	Unclear	Routine		Medication errors and usage	

Health Economics Unit

Table 4. Summary of studies reporting data on maternity and neonatal care

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation										
Campbell-Yeo 2021[15]	74%	Canada	Neonates	71 mothers, 2 wards	Neonates	Emergency	ICU	Parental presence and involvement (mother and partner feeding)		
Carter 2008[18]	33%	United States	Adults	1 hospital 53 parents	Neonates	Emergency	ICU	All p's<0.05 parent perceptions of access to staff		
Domanico 2011[29]	63%	United States	Neonates	162 patients (PEMRs 2/3=150, PEMRs 4=12), 1 hospital, 2 units	Paediatric	NR	NICU	PEMR 2-3: patient progress: *p*<0.001, total apnoea events *p*<0.001, apnoea events/day *p*=0.031, days on mother's breastmilk; *p*=0.001, days on mother's breastmilk per LOS; *p*=0.003, interval to enteral feeding; *p*<0.001, interval to breastmilk feeding; *p*=0.048, days on parenteral nutrition; *p*=0.004, days on parenteral nutrition per LOS	PEMR 2-3 p=0.94, gestational age p=0.92, admission weight p=NS, acuity p=0.45, weight gain p=0.17, length gain p=0.17, head circumference gain p=0.84, total CPAP days p=0.7, CPAP days/LOS p=0.17, total caffeine days p=0.11, total caffeine days/LOS *p*=0.765, interval to formula feeding PEMR 4:	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
									p=0.47, gestational age p=0.49, admission weight p=NS, acuity p=0.76, weight gain p=0.47, length gain p=0.70, head circumference gain p=0.59, total CPAP days p=0.94, CPAP days/LOS p=0.82, total caffeine days p=0.94, total caffeine days/LOS p=0.70, total apnoea events p=0.18, apnoea events/day *p*=0.937, interval to enteral feeding *p*=0.571, interval to formula feeding *p*=0.818, days on parenteral nutrition *p*=0.937, days on parenteral nutrition per LOS	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Dowling 2012[32]	63%	United States	Neonates	40 mothers, 1 hospital	Neonates	Emergency	ICU		p=NS., all breastfeeding measures	
Erickson 2011[38]	67%	United States	Neonates	73 patients, 1 hospital	Preterm neonates	Emergency	NICU	p=0.04, time to enteral nutrition	p=0.05, weight gain/day p=0.30, weight gain/day normalized to kg birth weight p=0.47, time to parenteral nutrition	
Harris 2004[49]	74%	Canada	Adults	976 patients, 1 new hospital unit established	Pregnant women	Maternity	Routine	p=0.04, continuous or intermittent electronic foetal monitoring p=0.03, IV therapy p=0.01, 1-minute Apgar <7	p=NS for augmentation of labour, 20-minutes initial electronic foetal monitoring at admission, epidural, narcotics, mode of delivery, and episiotomy	
Hourigan 2018[53]	63%	United States	Neonates	32 patients, 1 hospital	Neonates	Emergency	ICU		*p*=0.30, receiving some maternal or donor breastmilk	*p*=0.04, primarily receiving maternal or donor breastmilk
Janssen 2000[56]	56%	Canada	Adults	426 patients, 1 hospital relocation	Pregnant women	Maternity	Routine	p<0.001, patient satisfaction with amount of nurse interaction for physical, emotional, and	p=0.10, baby received supplementation with water p=0.25, p=0.05 clear discharge instructions of	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								spiritual needs, in labour, and postpartum p<0.001, patient satisfaction with nurse response time, teaching time, information received, feeding related teaching p<0.001, number of babies who received supplementation with formula p<0.001, number breastfeeding p=0.044, number breastfed within 1-2 hours post-delivery p=0.01, clear discharge instructions of when expect a call from the community health nurse p<0.001, clear instructions of how to use car seat, and nurse reviewed handouts	when to call the doctor, and when to make an appointment respectively	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Lester 2014[72]	63%	United States	Neonates	403 patients, 1 hospital relocation	Neonates	Emergency	ICU	Narrative - reduced stress p<0.0001, reduced pain		
Puumala 2020[102]	67%	United States	Neonates	9995 patients, 1 hospital	Neonates	Emergency	ICU	p<0.001, interval to oral feeding		
Olson 1992[93]	52%	United States	Adults	351 patients, 28 HCP, 1 hospital	Pregnant women	Maternity	Routine	*p*<0.05, nurse preferred single rooms *p*<0.01, nurse think single room is better for premature neonates	*p*>0.05, nurses think open rooms are better for ventilated/ critically ill infant	
Stevens 2012[122]	44%	United States	Neonates	73 patients, 1 hospital relocation	Neonates	Emergency	ICU	*p*=0.04, interval to enteric nutrition	p=NS., other nutrition parameters	
Swanson 2013[125]	37%	United States	Neonates, Carers, HCPs	55 parent surveys, 42 AP surveys, 151 NN surveys 1 hospital relocation	Neonates	Emergency	NICU	p<0.05, Advanced neonatal practitioner perceptions of development, facility and privacy p<0.05, Neonatal nurses perceptions of development, facility and privacy.	Advanced neonatal practitioners: p=NS., teamwork, communication, safety Neonatal nurses: p=NS., communication, safety Parents: p=NS, development and safety	Neonatal nurses: p<0.05, teamwork

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Toivonen 2017[132]	63%	Finland	Neonates	20 nurses, 1 hospital relocation	Neonates	Emergency	ICU	p=0.001, duration of nurse-parent interactions p<0.0001, duration of nurse-family interactions	p=0.349, number of nurse-parent interactions p=0.471, number of nurse-infant interactions p=0.073, duration of nurse-infant interactions p=0.488, number of nurse-family interactions	
Van der Hoeven 2022[135]	63%	Netherlands	Infants	1293 infants, 1 hospital	Infants	Unclear	ICU	p<0.001, weight at discharge p=0.003, rate of weight gain	p=0.13, gestational age at full enteral feeding	
Contemporaneous comparison										
Bodack 2016[10]	55%	Germany	Neonates	35 sets of parents	Premature neonates	Maternity care	NICU	Qualitative (quality of care)	Qualitative (communication)	
Erdeve 2008[36]	74%	Turkey	Adults, Neonates	60 infants, 49 mothers, 1 hospital	Preterm neonates	Emergency	NICU		p=0.084, Routine visits p=0.046, acute care visits p=0.154, number of breastfed infants	p=0.005, more total applications to health services p=0.001, more consultations by phone
Grundt 2021[47]	67%	Norway	Neonates	77 patients, 66 mothers, 2 hospitals, 2 units	Premature neonates	Maternity	NICU	*p*=0.08, *p*=0.06, volume breastmilk produced 7, 14, days post-delivery, respectively p<0.001, *p*=0.02,	*p*=0.71, number of sessions at the breast *p*=0.46, mother breastfeeding self-efficacy *p*=0.51, p=0.33,	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								infants breastfed directly and exclusively at discharge, at term, respectively p<0.001, *p*=0.003, p=0.00, infants partly directly breastfed at discharge, at term, and 4 months corrected age, respectively p=0.00[a] use of nipple shields	infants exclusively directly breastfed, or on solids, at 4 months corrected age, respectively *p*=0.33, *p* =0.61, use of nipple shields adjusted for post-menstrual age 33 weeks, 34 weeks, respectively	
Lester 2014[72]	63%	United States	Neonates	403 patients, 1 hospital	Neonates	Emergency	ICU	p=0.005, weight at discharge p=0.017, rate of weight gain p=0.015, interval to full enteral feeding		
Pineda 2012[100]	70%	United States	Neonates	81 patients, 1 hospital	Premature neonates	Emergency	NICU		p=0.75, breastmilk feeding at discharge	
Stelwagen 2021[120]	100%	Netherlands	Adults	1 hospital 36 parents	Neonates	Emergency	ICU	Narrative - apnoea and periodic breathing		
Tandberg 2019[128]	67%	Norway	Neonates	77 patients, 2 hospitals	Neonates	Emergency	ICU	Greater birth weight, length, and head circumference	p=0.45, p=0.42, breastmilk feeding exclusively at discharge, and term +4 months	Greater weight at term +4 months

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
										greater length at term +4 months
Vohr 2017[140]	67%	United States	Neonates	651 patients, 1 hospital relocation	Neonates	Emergency	NICU	*p*<0.001, weight gain per day *p*<0.001, weight gain at discharge *p*=0.002, human milk at 1 week *p*=0.001, human milk at 4 weeks *p*<0.001, volume of milk		

Health Economics Unit

Table 5. Summary of studies reporting data on complications of disease

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed			Pressure ulcers per 1,000 patient-days
Before and after a hospital relocation										
Blandfort 2019[7]	67%	Denmark	Adults, Elderly	1014 patients, 2 hospitals	Geriatric, Dementia	Elective	Routine	p=0.02, incidence of delirium	p=0.57, duration of first episode of delirium	
Cantoni 2009[16]	67%	Switzerland	Adults	227 patients, 1 hospital	Stem cell transplant	Elective	Routine	Number of patients with infections (total, pneumonia, CMV-reactivation, CMV-primary, invasive mould, other) Infection rates (pneumonia: clinical diagnosis)		Number of patients with infections (microbiologically documented, primary sepsis) Infection rates (sepsis, pneumonia, pneumonia: microbiological diagnosis)
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine		p=0.243, hospital-acquired pressure injuries	
Harris 2004[49]	74%	Canada	Adults	976 patients, 1 new hospital unit established	Pregnant women	Maternity	Routine		p=NS for rates of postpartum haemorrhage, pyrexia, rates of thick meconium, and cases of meconium aspiration	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Lester 2014[72]	63%	United States	Neonates	403 patients, 1 hospital relocation	Neonates	Emergency	ICU	Less stress (some related to increased maternal involvement) p<0.0001, maternal involvement related to lower pain scores p<0.0001, increased maternal involvement in care of the neonate p<0.0001, reduction in pain due to the SFR NICU alone		
Singh 2015[116]	70%	United Kingdom	Adults, Elderly	1749 patients, 1 hospital relocation	Internal medicine, Geriatric	Mixed	Routine			p<0.01, hip fractures due to falls
Stevens 2012[122]	44%	United States	Neonates	73 patients, 1 hospital relocation	Neonates	Emergency	ICU		OR 1.267, 0.929-1.730, serious adverse outcomes	
Lester 2016[73]	59%	United States	Neonates	216 patients, 1 hospital relocation	Premature neonates	Maternity	ICU		p=0.90, periventricular leukomalacia p=0.80, retinopathy of prematurity (stage 3, 4, 5) p=0.16, sepsis p=0.13, bronchopulmonary dysplasia	p=0.09, necrotising enterocolitis p=0.08, intraventricular haemorrhage (grade3/4)
Monson 2018[86]	78%	United States	Neonates	90 preterm infants, 15 term-	Preterm neonates	Emergency	NICU		p=0.35, bronchopulmonary dysplasia	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				born control infants, 1 hospital					p=0.38, infection	
Contemporaneous comparison										
Bracco 2007[13]	74%	Canada	Adults	2522 patients (of whom 207 known MRSA carriers at admission), 1 hospital, 1 ward	Mixed, Post surgery, Medical admission	Mixed	ICU	Organ failure		
Caruso 2014[19]	74%	Brazil	Adults	1253 patients, 1 hospital	Adults	Mixed	ICU	p<0.01 delirium prevalence p<0.01 medical admissions p<0.01 postoperative admissions	p=0.33 number of days with delirium	
Erdeve 2008,[36] Erdeve 2009[37]	74%	Turkey	Adults, Neonates	60 infants, 49 mothers, 1 hospital	Preterm neonates	Emergency	NICU		p=0.720 clinical risk index for babies p=0.673 neonatal therapeutic intensity scoring system	
Felice Tong 2018[40]	78%	Australia	Adults	185 patients, 1 hospital	Orthopaedic	Elective	Routine		p=0.70 thromboembolic events within 30-days p=0.21 superficial wound infection within 30-days Deep wound infections p=0.70	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
									medical complications within 30-days	
Knight 2016[66]	59%	United Kingdom	Elderly	100 patients, 2 hospitals	Geriatric, Dementia	Mixed	Routine		*p*>0.95, patients with hip fracture as result of inpatient fall	
Lehtonen 2020[71]	74%	Canada, Australia, New Zealand, Finland, Israel, Japan, Spain, Sweden, Switzerland, Italy	Neonates	4662 patients, 331 units	Preterm neonates	Emergency	ICU	OR 0.76, 0.64-0.89, death or any major morbidity	OR 0.95, 0.84-1.08, composite of mortality or any morbidity OR 0.84, 0.71-1.00, sepsis OR 1.10, 0.95-1.27, Broncho-pulmonary dysplasia OR 1.14, 0.95-1.37, Intraventricular haemorrhage / Periventricular leukomalacia OR 0.81, 0.66-0.99, Retinopathy of prematurity treatment	
Vohr 2017[140]	67%	United States	Neonates	651 patients, 1 hospital relocation	Neonates	Emergency	NICU	Bayley composites: p=0.02 Cognitive p=0.04 Language p=0.006 Expressive communication p=0.08 Motor p=0.04 Fine motor Bayley III composite scores:	Bayley composites: p=0.14 receptive communication p=0.67 gross motor p=0.11 normal neurologic examination	Suspicious neurological examination Abnormal neurological examination

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								p=0.05, cognitive p=0.02, language p=0.07, motor		
Lester 2014[72]	63%	United States	Neonates	403 patients, 1 hospital	Neonates	Emergency	ICU	p=0.05, sepsis		
Zaal 2013[145]	67%	Netherlands	Older Adults	156 patients 1 hospital	Older Adults with dementia	Mixed	ICU		p=0.53, crude risk of delirium	
Evidence synthesis										
OECD WHO 2019[92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed	p<0.05 Reduced medical errors		
Scottish Intercollegiate Guidelines Network 2019[115]	Report 73%	United Kingdom	Adults	NR	At risk for delirium	NR	Routine	Managing patients with delirium		
Taylor 2018[129]	SLR 91%	International	NR	NR	Mixed	Mixed	Mixed	ICU delirium		

Health Economics Unit

Table 6. Summary of studies reporting data on prevention of infection

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed	*Clostridium difficile* in older people's ward (Control new-build hospital)		*Clostridium difficile* in older people's ward (Study hospital)
Before and after a hospital relocation										
Bonizzoli 2011[11]	30%	Italy	Unclear	818 patients, 1 unit	Trauma	Unclear	ICU	Isolates of MRSA, *Proteus mirabilis*, *Escherichia coli*, *Serratia marcescens*, and *Enterobacter* spp p<0.01, amoxicillin/ clavulanate use, ceftriaxone use p<0.05 oxacillin use, vancomycin use		
Darley 2018[24]	56%	United Kingdom	Unclear	1 hospital relocation	Unclear	Unclear	Routine	p=0.04, *Escherichia coli* bacteraemia p=0.01, hospital-acquired *Clostridium difficile* infection	p=0.22, hospital acquired methicillin-sensitive *Staphylococcus aureus* bacteraemia	
Domanico 2011[29]	63%	United States	Neonates	162 patients (PEMRs 2/3=150, PEMRs 4=12), 1 hospital, 2 units	Paediatric	NR	NICU	Incidence of nosocomial sepsis (*Candida albicans*, CONS, *Enterococcus*	Incidence of nosocomial sepsis (*Escherichia coli*)	Incidence of nosocomial sepsis (*Enterobacter cloacae*, *Klebsiella pneumoniae*)

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								faecalis, MRSA, *Staphylococcus aureus*, total)		
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine		p=0.251, hospital acquired MRSA infections p=0.865, MRSA present on admission	
Ferri 2015[41]	100%	Canada	Adults	39 HCPs, of which 13 nurses, 7 respiratory therapists, 5 HCPS (other), 6 physicians, 4 family members 4 support staff, 1 hospital	Unclear	Unclear	ICU	Patient perception (6 patients perceived better infection prevention)		
Gregersen 2021[46]	70%	Denmark	Elderly	446 patients, 1 hospital relocation	Geriatric	Unclear	Routine	% hospital-acquired infections p=0.01, p=0.03[a] time from admission to first hospital-acquired infection p=0.004 urinary tract infections	p=0.74, pneumonia p=0.50, gastritis p=0.09, sepsis p=0.22, other (wound infection, nephritis, and erysipelas)	
Halaby 2017[48]	48%	Netherlands	Unclear	16 beds, 1 hospital	Unclear	Unclear	ICU	p=0.001, transmission of any Multidrug resistant bacteria p=0.0015,	p=0.37 transmission of *Morganella* spp	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								transmission of *Citrobacter* spp p=0.0005 transmission of *Enterobacter* spp	p=0.99, transmission of *Proteus* spp p=0.25, transmission of *Serratia* spp p=0.39, transmission of *Pseudomonas* spp	
Hourigan 2018[53]	63%	United States	Neonates	32 patients, 1 hospital	Premature neonates	Emergency	NICU	p=0.0001, fewer positive skin swabs p=0.0003, fewer positive environmental swab samples Presence of antibiotic resistance genes (including resistome and virulome)	p=NS comparison of the entire bacterial community at the genus level Potential human pathogenic viruses in 2-week stool, discharge stool and skin samples Species alpha diversity	
Jansen 2021[55]	63%	Netherlands	Neonates	712 patients 1 hospital, 2 units	Premature neonates	Maternity care	NICU		p=0.62, incidence density per 1000 patient-days p=0.59, cumulative incidence per 100 infants p=0.66, skin and/or soft tissue infection p=0.15, conjunctivitis	
Jung 2022[62]	67%	South Korea	Adults	901 patients, 1 hospital	Mixed	Unclear	ICU	p<0.001[a], CRAB acquisition		

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Lazar 2015[70]	48%	Israel	Children	4162 patients, 1 hospital	Children	Mixed	PICU	p=0.01, incidence of BSI p=0.03, nosocomial BSI	p=0.26, community-acquired BSI	
McDonald 2019[80]	48%	Canada	Unclear	1 hospital relocation	Mixed	Mixed	Mixed	Enterococcus, MRSA, and *Clostridium difficile* infections per 10,000 patient-, days	p=NS, decline in rates of *Clostridium difficile* and MRSA infection	
Puumala 2020[102]	67%	United States	Neonates	9995 patients, 1 hospital	Premature neonates	Emergency	NICU	p=0.02, sepsis in preterm infants (<28 weeks preterm)	p=0.43, sepsis in preterm infants (28 – 32 weeks preterm) p=0.42, sepsis in preterm infants (32 – 37 weeks preterm)	p=0.001 sepsis in term/post-term infants (>37 weeks)
Song 2018[119]	63%	United States	Neonates	171 patients, 1 hospital	Premature neonates	Emergency	NICU	hospital-acquired ESBL-E incidence		
Teltsch 2011[131]	67%	Canada	Adults	19343 patients, 2 hospitals	Unclear	Unclear	ICU	positive cultures per 10,000 patient-days for yeast, coagulase-negative *Staphylococcus* spp, *Enterococcus* spp, *Staphylococcus aureus*, *Escherichia* spp, *Pseudomonas* spp, *Klebsiella* spp, *Clostridium difficile*, *Corynebacterium* spp,		Positive cultures per 10,000 patient-days for *Enterobacter* spp, *Haemophilus* spp, MRSA, *Streptococcus viridans*, *Acinetobacter* spp, *Streptococcus pneumoniae*, Group B *Streptococcus* spp, *Neisseria* spp

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								Stenotrophomonas maltophilia, *Citrobacter* spp, *Proteus mirabilis*, *Serratia* spp, fungi, VRE, *Lactobacillus* spp, anaerobic cocci, *Morganella* spp, *Bacteroides* spp, *Moraxella* spp		
Van der Hoeven 2022[135]	63%	Netherlands	Neonates	1293 patients, 1 hospital	Premature neonates	Unclear	NICU	Infection of multidrug-resistant organisms Colonisation of third-generation cephalosporin resistant bacteria	Multidrug-resistant organisms: Bacteraemia Colonisation of third-generation cephalosporin resistant bacteria Third-generation cephalosporin resistant bacteria: Bacteraemia	Colonisation of multidrug-resistant organisms
Van Veenendaal 2020[137]	70%	Netherlands	Neonates	1152 patients, 1 hospital	Neonates	Emergency	NICU	% treated for early-onset sepsis Overall late-onset sepsis OR 0.55, 0.34-0.90 OR[a] 0.49, 0.30-0.81 Late-onset probable sepsis OR 0.64, 0.38-1.08 OR[a] 0.56, 0.32-0.96	Culture-proven late-onset sepsis OR 0.83, 0.44-1.56 OR[a] 0.74, 0.39-1.41 Symptoms of late-onset sepsis OR 0.22, 0.05-1.01 OR[a] 0.24, 0.05-1.08 Late-onset sepsis OR 0.40, 0.16-1.03 OR[a] 0.34, 0.13-1.91	
Vietri 2004[139]	59%	United States	Adults	261 patients, 1 hospital	Mixed	Unclear	Routine		Positive MRSA culture	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Vohr 2017[140]	67%	United States	Neonates	651 patients, 1 hospital	Premature neonates	Emergency	NICU	*p*=0.09, sepsis or necrotizing enterocolitis ≥ Bell stage IIA	*p*=0.052, late-onset sepsis	
Walsh 2006[142]	33%	United States	Neonates	127 nurses, 1 hospital	Neonates	Emergency	NICU	p<0.05, catheter-related BSI		
Contemporaneous comparison										
Bevan 2016[5]	59%	United Kingdom	Adults, Elderly	50 patients, 2 hospitals	Acute medical illness	Emergency	Routine	Patient perception of hygiene and infection risk		
Bocquet 2021[9]	74%	France	Adults, Children	233 patients, 1 hospital	Mixed, Influenza	Elective, Emergency	Routine	Nosocomial cases Community-acquired cases		
Bracco 2007[13]	74%	Canada	Adults	2522 patients (of whom 207 known MRSA carriers at admission), 1 hospital, 1 ward	Mixed, Post surgery, Medical admission	Mixed	ICU	p<0.001[u,m], risk of BSI p<0.05[u,m], risk of MRSA acquisition p=0.001[u,m], risk of *Pseudomonas* spp acquisition p<0.001[u] p<0.03[m], risk of *Candida* spp acquisition		
Caruso 2014[19]	74%	Brazil	Adults	1253 patients, 1 hospital	Adults	Mixed	ICU		p=0.19 acquired infections	
Cobo 2001[20]	74%	Spain	Adults	50 patients, 1 hospital, 2 wards	Respiratory, HIV	Unclear	Routine		p=0.052, likelihood of multi-drug resistant tuberculosis due to	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
									Mycobacterium bovis	
Everts 1996[39]	52%	New Zealand	Elderly	27 patients, 1 hospital	Unclear	Rehabilitation	Routine	Cases of clinical influenza		
Ford-Jones 1990[44]	52%	Canada	Children	1530 patients	Cardiological, General admission, Neurosurgical	Unclear	Routine	Cases of nosocomial diarrhoea (GA and neurosurgical unit)	Cases of nosocomial diarrhoea (cardiological unit)	
Fraenkel 2018[45]	67%	Sweden	Adults, Children, Elderly	251 patients, 8 hospitals	Mixed (all hospitalised patients who acquired norovirus during admission)	Unclear	Routine	p<0.01, norovirus		
Harris 2006[50]	63%	United States	Neonates	21 parents, 75 HCPs, 11 hospitals	Neonates	Emergency	NICU		Nosocomial BSI	Nosocomial pneumonia
Julian 2015[61]	78%	United States	Neonates	1823 patients 1 hospital, 1 unit	Neonates	Mixed	NICU	p=0.039, MRSA colonization rate for each additional one patient	p=0.10, incidence of MRSA colonization p=0.89, *Clostridium difficile* infection rate	
Jou 2015[60]	74%	United States	Adults	225 patients, 1 hospital	Mixed	Elective	Mixed			p=0.001, nosocomial *Clostridium difficile* infection p<0.001, malignancy

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Kinnula 2008[64]	63%	Finland	Children	1927 patients, 1 hospital	Children, infectious disease	Mixed	Routine	p=0.03, risk for hospital acquired infection		
Kinnula 2012[65]	67%	Finland, Switzerland	Children	5119 patients, 3 hospitals, 4 wards	Children, mixed	Mixed	Routine	p<0.001, risk for hospital acquired infection during hospitalization (1 hospital)	p=0.56, risk for hospital acquired infection during hospitalization (1 hospital) p=NS, risk of hospital acquired infection after discharge (3 hospitals)	
Liu 2019[74]	100%	Canada	Adults	1 hospital 15 parents of hospitalised infants	Neonates	Emergency	ICU	Parents' perception (reduced spread of infection)		
Lorenz 2011[75]	78%	United States	Adults, Elderly	166 patients, 1 hospital	Medical, Surgical, Oncologic	Unclear	Routine		p=NS, hospital-acquired infections	
Mattner 2007[79]	74%	Germany	Adults	336 patients, 1 hospital	Cardiovascular, Thoracic surgery	Mixed	ICU		Enterococci OR 1.06, 0.36-3.12 p=0.91	
Monson 2018[86]	78%	United States	Neonates	90 preterm infants, 15 term-born control infants, 1 hospital	Preterm neonates	Emergency	NICU		p=0.38, infection	
Morgan 2010[87]	44%	United Kingdom, United States	Adolescents, Adults, Children	146 patients, 114 HCP, 2 hospitals	Unclear	Mixed	Routine	HCP preference for isolation and infection control		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Munier-Marion 2016[88]	74%	France	Adults	93 patients, 1 hospital	Geriatric, Mixed, Surgical	Unclear	Routine	p=0.028, p=0.039[a], risk of hospital-acquired influenza	p=0.16, influenza vaccination coverage	
O'Neill 2018[94]	74%	United States	Mixed	>1 million patients, 218 hospitals with >50% private rooms, 117 with >50% bay rooms	Mixed	Mixed	Mixed	p<0.001, p=0.005[a], central-line-associated BSIs p<0.001, central-line-associated BSIs related mortality		
Park 2020[95]	63%	United States	Mixed	2,670,855 discharges, 340 hospitals	Mixed	Mixed	Mixed	p<0.001, p<0.001[a], hospital-acquired MRSA infections		
Pilmis 2020[99]	63%	France	Adults	107 patients, 1 hospital	Mixed	Unclear	Routine	p=0.13[u], p=0.0005[m], contamination		
Quach 2018[104]	59%	Canada, United States	Children	83,334 patient-days, 2 hospitals	Mixed	Mixed	Mixed	p<0.0001, hospital-acquired respiratory viral infections		
Sadatsafavi 2016[111]	100%	Canada	Unclear	8811 patient-days, 1 hospital (simulation)	Medical, Surgical	Unclear	ICU	Annual cases of MRSA acquisition, Pseudomonas species acquisition, and Candida species colonization		
Stiller 2017[124]	59%	Germany	Unclear	534 units	Unclear	Unclear	ICU	Polymicrobial BSI OR 0.66, 0.51-0.86		
Tandberg 2019[128]	67%	Norway	Neonates	77 patients, 2 hospitals	Premature neonates	Emergency	NICU		p=0.36, septicaemia	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Vaisman 2018[133]	67%	United States	Adults	189 patients, 512/515 controls, 1 hospital	Unclear	Unclear	Routine		P=NS, hospital-onset *Clostridium difficile*	
Washam 2018[143]	78%	United States	Neonates	1751 patients, 1 hospital	Neonates	Emergency	NICU	p=0.03[u], p=0.03[m], MRSA		
Evidence synthesis										
OECD WHO 2019[92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed	p<0.05, hospital-acquired infections		
Taylor 2018[129]	SLR 91%	International	NR	NR	Mixed	Mixed	Mixed	7 studies found advantages only	3 studies found mixed results 4 studies found no difference	
Voigt 2018[141]	SLR 86%	International	NR	NR	NR	Unclear	Routine	10 studies	5 studies	16 studies

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Table 7 Summary of studies reporting data on patient safety

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed			Falls per 1,000 patient-days
Before and after a hospital relocation										
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine		p=0.599 Falls in hospital p=0.491 Unwitnessed fall p=0.082 Second fall	
Reid 2015[107]	48%	United Kingdom	Adult, Elderly	89 patients, 1 hospital relocation	Geriatric	Rehabilitation	Routine		Falls per 1,000 occupied bed days	
Singh 2015[116]	70%	United Kingdom	Adults, Elderly	1749 patients, 1 hospital relocation	Internal medicine, Geriatric	Mixed	Routine			p<0.01, p<0.01[a], falls per 1,000 patient-bed days p<0.001, falls per in-patient faller
Contemporaneous comparison										
Knight 2016[66]	59%	United Kingdom	Elderly	100 patients, 2 hospitals	Geriatric, Dementia	Mixed	Routine		p=0.83, number of patients who sustained inpatient falls	p=0.035, falls per inpatient faller
Lorenz 2011[75]	78%	United States	Adults, Elderly	166 patients, 1 hospital	Medical, Surgical, Oncologic	Unclear	Routine		p=0.37, likelihood of falls	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Poncette 2021[101]	55%	Germany	Unclear	21 beds, 1 hospital	Unclear	Unclear	ICU			Alarms raised per bed
Evidence synthesis										
OECD WHO 2019[92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed	p<0.05, patient falls		
Taylor 2018[129]	SLR 91%	International	Adults	NR	Mixed	Mixed	Mixed		No difference	1 study found disadvantages only
Voigt 2018[141]	SLR 86%	International	NR	NR	NR	Unclear	Routine		5 studies found no difference	

Health Economics Unit

Table 8. Summary of studies reporting data on readmissions and reinterventions

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Contemporaneous comparison										
Erdeve 2008[36]	74%	Turkey	Infants	60 infants, 1 hospital	Preterm neonates	Emergency	ICU	p<0.05, hospitalisation		
Felice Tong 2018[40]	78%	Australia	Adults	185 patients, 1 hospital	Orthopaedic	Elective	Routine			p=0.03, return to theatre within 6 weeks

Health Economics Unit

Table 9. Summary of studies reporting views on privacy

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed	Qualitative (privacy, comfort, personal control, visitor flexibility)		
Before and after a hospital relocation										
Anåker 2019[3]	90%	Sweden	Adults	16 patients, 1 hospital	Stroke	Rehabilitation	Routine	Qualitative (privacy, personal control)		
Carlson 2006[17]	33%	United States	Neonates	1 hospital, Patients unclear	Neonates	Emergency	ICU	Parent-reported privacy		
Carter 2008[18]	33%	United States	Adults	1 hospital 53 parents	Neonates	Emergency	ICU	p<0.001, patients' perception of privacy		
Curtis 2017[21]	80%	United Kingdom	Children	1 hospital, 4 wards 17 patients, 60 caregivers, 60 HCPs	Paediatric	Unclear	Routine	Qualitative (privacy)		
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine	Perception of privacy		
Domanico 2010[28]	63%	United States	Parents	1 hospital, 2 units 161 caregivers	Paediatric	NR	NICU	p<0.001, privacy for bonding (long-stay) Transitional parent perceptions: privacy for bonding and for breastfeeding	p=NS, privacy for bonding (short stay) p=0.111 (short stay), p=0.076 (long stay), privacy for breastfeeding	
Dowling 2012[32]	63%	United States	Parents	1 hospital 40 mothers	Neonates	Emergency	ICU		p=NS, comfortable pumping breastmilk	
Ferri 2015[41]	100%	Canada	Unclear	1 hospital, 39 HCPs (13 nurses,	Unclear	Unclear	ICU	Qualitative (privacy)		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				7 respiratory therapists), 5 HCPs (other), 6 physicians, 4 family members 4 support staff						
Florey 2009[42]	44%	United Kingdom	Adults	2 hospitals, 1 before and after move, 80 patients	Medical and surgical, Adults	Unclear	Routine	p<0.001, discussing personal matters p<0.001, patient preference		
Harris 2004[49]	74%	Canada	Adults	1 hospital, 976 patients	Pregnant women	Maternity	Routine	p=0.01, physicians' perception of privacy		
Janssen 2000[56]	56%	Canada	Adults	1 hospital, 426 patients	Pregnant women	Maternity	Routine	p<0.001, respect shown by caregiver for privacy *p<0.001, greater number of different nurses, doctors, and staff who interacted with the patient*		
Jones 2016[58]	100%	Australia	Adults, Neonates	1 hospital relocation 66 mothers, 51 nurses	Adults, Mothers of premature neonates, Nurses	Maternity	NICU	Qualitative (privacy)		
Milford 2008[84]	30%	United States	Neonates	1 hospital, patients unclear	Neonates	Emergency	ICU	Staff perceptions of privacy		
Real 2018[105]	56%	United States	Unclear	111 patients, 77 nurses, 1 hospital	Cardio-vascular	Unclear	Routine	Privacy	Communication Help from staff	
Reid 2015[107]	48%	United Kingdom	Adult, Elderly	89 patients, 1 hospital relocation	Geriatric	Rehabilitation	Routine	Qualitative (privacy)		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Roos 2020[108]	90%	Norway	Adults	39 patients, 1 hospital relocation	Internal medicine, Surgical, Maternity	Maternity, Unclear	Routine	Qualitative (privacy)		
Stevens 2011[121]	52%	United States	Adults	1 hospital, 147 patients	Neonates	Emergency	ICU	Patient-reported privacy		
Swanson 2013[125]	37%	United States	Adults	1 hospital 55 parents	Neonates	Emergency	ICU	p<0.05, nurses', patients', and advanced practitioners' perceptions of privacy		
Contemporaneous comparison										
Apple 2014[4]	52%	Sweden	Adults	3 ICUs 81 HCP	Mixed	Unclear	ICU	Staff perceptions of privacy		
Bevan 2016[5]	59%	United Kingdom	Adults, elderly	2 hospitals 50 patients	Aged 65+ years with acute illness	Emergency	Routine	Qualitative (privacy)		
Bodack 2016[10]	56%	Germany	Adults	1 hospital 35 pairs of parents of 40 neonates	Neonates	Emergency	ICU	Patient reported privacy		
Boztepe 2017[12]	63%	Turkey	Children	1 hospital, 1 ward 130	Children	Mixed	Routine			Lack of privacy
Deitrick 2010[26]	90%	United States	Adults	24 patients, 29 HCP, 2 hospitals, 2 wards	Orthopaedic, Neurological, Surgical	Unclear	Routine	Patient preference for privacy		
Douglas 2005[30]	90%	United Kingdom	Adults	1 hospital 785 patients (post discharge)	Adults	Unclear	Routine		*Mixed results*	
Ehrlander 2009[35]	78%	United States	Adults, elderly Adults	1 hospital 117 patients	Adults	Unclear	Routine	p<0.01, adequate privacy		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Harris 2006[50]	63%	United States	Adults	5 NICU units SFR=2 Open-bay=3 HCPs=75 Parents=21	Neonates	Maternity	Level 3, NICU	Parent preference for privacy		
Hosseini 2017[52]	63%	Iran	Adults	2 hospitals 132 patients	Adults, Medical or surgical	Unclear	Routine	p<0.001, adequate privacy		
Janssen 2006[57]	59%	Canada	Adults	1 hospital, 2 wards 415 patients	Pregnant women	Maternity	Routine	Patient satisfaction with for respect for privacy		
Liu 2019[74]	100%	Canada	Adults	1 hospital 15 parents of hospitalised infants	Neonates	Emergency	ICU	Privacy enabled the learning and practice of caregiving skills		
Malcolm 2005[78]	80%	New Zealand	Adults	Hospitals unclear, 12 former patients	Mixed surgery, orthopaedic, medical, obstetric, ENT	Mixed	Routine	Qualitative (privacy)		Qualitative (supportive)
Morgan 2010[87]	44%	United Kingdom, United States	Children	2 hospitals 146 patients, 114 HCP	Children	Mixed	Routine	Patient perception (privacy) HCP perception (privacy, dignity, confidentiality)		
Nahas 2016[89]	56%	United Kingdom	Adults, Elderly	60 patients, 2 hospitals	Orthopaedic	Elective	Routine	p=0.004, better privacy		
Nash 2021[90]	63%	Australia	Adults	4 hospitals 602 patients	Indigenous Adults	Theoretical	Routine	Qualitative (privacy)		
Nassery 2019[91]	90%	Sweden	Adults	1 hospital, 13 interviews (9 individual parents and 4 pairs of parents)	Children	Unclear	Mixed	Qualitative (privacy, comfort)		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Olson 1992[93]	52%	United States	Adults	1 hospital 351 patients, 28 HCP	Pregnant women	Maternity	Routine	Patient preference (privacy)		
Persson 2012[97]	90%	Sweden	Adults, Elderly	16 patients, 10 nurses 1 hospital	Orthopaedic, Surgical	Unclear	Routine	Patients in shared rooms signalled their need for privacy		
Persson 2015[98]	90%	Sweden	Adults	16 patients, 1 hospital	Surgical	Unclear	Routine	Feelings of homeliness		
Rowlands 2008[110]	90%	United Kingdom	Adults	1 hospital 12	Adults with advanced cancer	Unclear	Routine	Patient preference (privacy)		
Schalkers 2015[114]	100%	Netherlands	Children	8 hospitals 63 patients	Children	Mixed	Routine	Qualitative (children's preferences for privacy)		
Stelwagen 2021[120]	100%	Netherlands	Adults	1 hospital 36 parents	Neonates	Emergency	ICU			Privacy violations felt more in single rooms
Van de Glind 2008[134]	74%	Netherlands	Adults	1 hospital 52 encounters	Urology	Unclear	Routine		Frequency or content of intimate communications	
Evidence synthesis										
Bradbury-Jones 2013[14]	SLR 86%	International	Adults	NR	Mixed, Vulnerable, Learning difficulties	Unclear	Unclear	Side rooms ensure privacy		
Dowdeswell 2004[31]	SLR 36%	International	Unclear	Unclear	Mixed	Mixed	Mixed	More privacy, which contributes to better outcomes	No quantifiable evidence of improved outcomes	
Mental Welfare Commission Scotland 1991[82]	Report 30%	United Kingdom	Unclear	258 patients, 28 hospitals	Psychiatric	Unclear	Routine	Easier to meet with visitors		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
OECD WHO 2019[92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed	p<0.05, improved patient privacy		
Søndergaard 2022[118]	SLR 91%	International	NR	NR	Acute, Surgical, Internal medicine	Unclear	Routine	Privacy, personal control and self-empowerment		
Taylor 2018[129]	SLR 91%	International	NR	NR	Mixed	Mixed	Mixed		All studies reported advantages and disadvantages	

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Table 10. Summary of studies reporting views on patients' loneliness/isolation and family contact

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed (all patients in hospital)	Unclear	Mixed		Mixed findings regarding communication	Not isolated More interactions with other patients
Before and after a hospital relocation										
Anåker 2017[2]	59%	Sweden	Adults	59 patients, 1 hospital	Stroke	Rehabilitation	Routine			Not isolated Availability of interactions with physicians, nurses, nurse assistants, physiotherapists, occupational therapists, speech and language therapist, significant other, other team member, and interpreters
Anåker 2019[3]	90%	Sweden	Adults	16 patients, 1 hospital	Stroke	Rehabilitation	Routine			Less feeling of loneliness and emptiness Have company to talk to
Bevan 2016[5]	59%	United Kingdom	Adults, Elderly	50 patients, 2 hospitals	Acute illness	Emergency	Routine	Private toilet and showing facilities		Less feeling of loneliness and isolation Greater companionship and goodwill

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Campbell-Yeo 2021[15]	74%	Canada	Neonates	71 mothers, 2 wards	Neonates	Emergency	ICU	More parental presence and involvement, including time with skin-to-skin contact, singing/ talking/ reading to infant, bathing, diaper changes, and providing comfort during painful procedures. More time partner spent holding infants clothed Partner attended rounds at least once during stay	Mothers' attendance at rounds Time mothers spent bathing infants	*More time mothers spent holding infants clothed*
Curtis 2017[21]	80%	United Kingdom	Children	17 patients, 60 caregivers, 60 HCPs, 1 hospital, 4 wards	Paediatric	Unclear	Routine	Enhanced family support		Socialisation Not isolated
Cusack 2019[22]	56%	Australia	Adults, HCP	43 nurses, 15 patients, 1 hospital	Unclear	Unclear	Routine			Not isolated
Domanico 2010[28]	63%	United States	Neonates	161 caregivers, 1 hospital, 2 units	Paediatric	NR	NICU	p=0.012, ability to relax with child (long stay)	p=0.065, perceptions of meeting other parents (short stay) p=0.142 (short stay), p=0.542 (long stay), other	Socialisation p=0.036, perceptions of meeting other parents (long stay)

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
									parents made stay easier p=0.879, ability to relax with child (short stay)	
Ferri 2015[41]	100%	Canada	Adults	39 HCPs, of which 13 nurses, 7 respiratory therapists, 5 HCPS (other), 6 physicians, 4 family members 4 support staff, 1 hospital	Unclear	Unclear	ICU	Increased visitor presence Increased visitor-provider interaction Accommodates Routine and emergency care Patient satisfaction Confidentiality/ privacy		Socialisation Camaraderie
Florey 2009[42]	44%	United Kingdom	Adults	80 patients, 2 hospitals, 1 Before and after move	Medical and surgical, Adults	Unclear	Routine	p=0.002, better for visitors		p<0.001, less loneliness
Janssen 2000[56]	56%	Canada	Adults	426 patients, 1 hospital	Pregnant women	Maternity	Routine		*Patient satisfaction regardless of room design:* *p=0.005, time spent with support person* *p=0.007, time spent with baby* *p=0.39, amount of rest*	
Jones 2016[58]	100%	Australia	Neonates	66 mothers, 51 nurses, 1 hospital relocation	Adults, Mothers of premature neonates, Nurses	Maternity	NICU	Qualitative (personal control, homeliness, accommodates overnight stay, facilitates mother-		p<0.05, more support Qualitative objections to single rooms

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								infant connection, confidence, parental skills, breastfeeding, and bonding)		(inconsistent or lack of information, poor interpersonal skills, loneliness, isolation; shared rooms - shared information from other patients, and other patient-nurse interactions)
Kainiemi 2021[63]	59%	Finland	Neonates	61 families, 1 hospital, 1 unit (pre-post-restructuring)	Pre-term infants (<35 weeks)	Unclear	NICU	p<0.0001, parents', mother's, and father's presence	p=NS, skin-to-skin contact with either parent, mother, or father	
Real 2018[105]	56%	United States	Unclear	111 patients, 77 nurses, 1 hospital	Cardio-vascular	Unclear	Routine	Qualitative (visitor comfort, better family dynamic)		
Reid 2015[107]	48%	United Kingdom	Adult, Elderly	89 patients, 1 hospital relocation	Geriatric	Rehabilitation	Routine		% feeling lonely	
Roos 2020[108]	90%	Norway	Adults	39 patients, 1 hospital relocation	Internal medicine, Surgical, Maternity	Maternity, Unclear	Routine	Visiting hours		Less boredom Not isolated
Rosbergen 2020[109]	74%	Australia	Adults, Elderly	73 patients, 1 hospital relocation	Stroke, Neurological	Emergency, Rehabilitation	Routine	p=0.02, physical activity	P=NS, social activity Cognitive activity	Less feeling of loneliness
Singh 2016[116]	70%	United Kingdom	Adults, Elderly	100 patients, 1 hospital relocation	Internal medicine, Geriatric	Mixed	Routine			p=0.03[a], less feeling of loneliness
Stevens 2011[121]	52%	United States	Neonates	147 patients, 1 hospital Before	Neonates	Emergency	ICU	Space for family Accommodations for parents		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				and after relocation						
Stevens 2012[122]	44%	United States	Neonates	73 patients, 1 hospital Before and after relocation	Neonates	Emergency	ICU	p=0.017, family-centred care		
Toivonen 2017[132]	63%	Finland	Neonates	20 nurses, 1 hospital Before and after relocation	Neonates	Emergency	ICU	p<0.0001, total nurse–family interaction time p=0.001, total nurse–parent interaction time	p=NS, total nurse–infant interaction time	
Contemporaneous comparison										
Apple 2014[4]	52%	Sweden	Unclear	81 HCP, 3 ICUs	Mixed	Unclear	ICU	Qualitative support for single rooms (family involvement, family presence during care)		
Bodack 2016[10]	56%	Germany	Neonates	35 pairs of parents of 40 neonates, 1 hospital	Neonates	Emergency	ICU	More secure/ confident caring for baby		Contact and exchange of knowledge with other parents
Darcy Mahoney 2020[23]	59%	United States, International	Neonates	NR, 277 units	Paediatric, new-born	NR	NICU	p=0.018, parental presence following COVID-19 restrictions p=0.013, parental presence during rounds prior to COVID-19 restrictions	p=NS, parental presence prior to COVID-19 restrictions p=0.6, parental presence during rounds prior to COVID-19 restrictions	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
De Matos 2020[27]	63%	Brazil	Unclear	176 family visitors, 1 hospital, 4 ICU units	Cancer	Unclear	ICU		p=0.52, stress within 24 hrs p=0.15, stress within 7 days	
Ehrlander 2009[35]	78%	United States	Adults	117 patients, 1 hospital	Adults	Unclear	Routine	Accommodates visitors	p=0.913, loneliness	*>50% enjoy conversation with room mate and gave help to room mate*
Erdeve 2008[36]	74%	Turkey	Infants	60 infants 1 hospital	Preterm neonates	Emergency	ICU			*Time spent with infants during non-hospitalised time*
Harris 2006,[50] Harris 2006[51]	63%	United States	Neonates	75 HCP, 21 parents, 5 NICU units (SFR=2, open bay=3)	Neonates	Unclear	Level 3, NICU		Contact with other parents	
Hosseini 2017[52]	63%	Iran	Adults	132 patients, 2 hospitals	Medical, Surgical	Unclear	Routine	p<0.001, visitor convenience		p<0.001, less feeling of loneliness
Liu 2019[74]	100%	Canada	Neonates	15 parents, 1 hospital	Neonates	Emergency	ICU	Qualitative (engage in parenting activities beyond basic caregiving)	Qualitative (isolation)	
Malcolm 2005[78]	80%	New Zealand	Adolescents, Adults	12 former patients	Mixed surgery, orthopaedic, medical, obstetric, ENT	Mixed	Routine			Qualitative (camaraderie and support)
Milford 2008[84]	30%	United States	Neonates	No. of patients unclear, 1 hospital	Neonates	Emergency	ICU	Staff perception of discussions with families		

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Morgan 2010[87]	44%	UK, US	Children	146 patients, 114 HCP, 2 hospitals	Children	Mixed	Routine	Patients' privacy Visitor times Undisturbed sleep Personal control		Patients: Communication Company Entertainment HCPs: Interaction with other patients Company
Nahas 2016[89]	56%	United Kingdom	Adults, Elderly	60 patients, 2 hospitals	Orthopaedic	Elective	Routine		p=0.754, isolation p=0.638, loneliness	
Nash 2021[90]	63%	United Kingdom	Adults, Elderly	100 patients,	Adults >65 years, recovering from acute illness	Emergency	Routine	Company of family, not strangers		Qualitative (not isolated, social interactions)
Nassery 2019[91]	90%	Sweden	Children	13 parents, 1 hospital	Children	Unclear	Mixed	Qualitative (patient preference, privacy, stress, quieter)		Qualitative (shared experience and advice)
Olson 1992[93]	52%	United States	Adults	351 patients, 28 HCP, 1 hospital	Pregnant women	Maternity	Routine		*Mothers satisfied with visiting hours*	
Pease 2002[96]	48%	United Kingdom	Unclear	50 patients, 1 hospital	Oncologic, Terminal	Unclear	Routine			Qualitative (not isolated)
Persson 2012[97]	90%	Sweden	Adults, Elderly	16 patients, 10 nurses, 1 hospital	Orthopaedic, Surgical	Unclear	Routine			Qualitative (not isolated)
Persson 2015[98]	90%	Sweden	Adults	16 patients, 1 hospital	Surgical	Unclear	Routine			Qualitative (not isolated, company, social contact)
Pineda 2012[100]	70%	United States	Neonates	81 patients, 1 hospital	Premature neonates	Emergency	NICU	p=0.021[a], time parents spent	p=NS, time parents spent holding the infant	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								visiting the infant (week 1-2) p=0.039, time spent cuddling, visiting, and with skin-to-skin contact (week 1-2) p=0.026, p=0.017[a], time parents spent visiting the infant during weeks 3-4 p=0.062, p=0.047[a], time parents spent visiting the infant by LOS	p=0.193, time parents spent visiting the infant (week 5–term) p=0.593, interval to first time parents hold infant p=0.810, days spent cuddling infant (week 1–2) p=0.548, days spent cuddling infant (week 3–4) p=0.592, days spent cuddling infant (week 5–term) p=0.361, days spent cuddling infant by LOS p=0.496, days with skin-to-skin (week 1–2) p=0.111, days with skin-to-skin contact (week 3–4) p=0.489, days with skin-to-skin contact (week 5–term) p=0.360, days with skin-to-skin contact by LOS	
Rowlands 2008[110]	90%	United Kingdom	Adults	12 patients, 1 hospital	Adults with advanced cancer	Unclear	Routine	Qualitative (privacy)		Qualitative (social interactions)

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Schalkers 2015[114]	100%	Netherlands	Children	8 hospitals 63 patients	Children	Mixed	Routine			Qualitative (company, patient preference if they have similarities with other patients)
Stelwagen 2021[120]	100%	Netherlands	Neonates	36 parents, 1 hospital Before and after relocation	Neonates	Emergency	ICU	Qualitative (family communication and closeness, personal control, privacy, tranquillity, comfort, practicing parenting skills)		Qualitative (not isolated, ability to distance themselves from invasive procedures)
Swanson 2013[125]	37%	United States	Neonates, Carers	55 parents, 1 hospital	Neonates	Emergency	NICU	p<0.05 advanced practitioners' satisfaction with communication		p<0.05, nurse satisfaction with communication p<0.05, nurse satisfaction with team
Tandberg 2018[126]	70%	Norway	Neonates	64 patients, 115 parents, 2 hospitals	Neonates, Premature neonates	Emergency	ICU	p<0.001, time mother and father present during first 14 days p=0.02, mother's skin-to-skin contact per 24 h p=0.05, father's skin-to-skin contact per 24 h p=0.02, guidance provided by the staff meets needs of mothers	p=0.53, guidance provided by the staff meets needs of fathers p=0.21, fathers felt their opinions were considered	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								p=0.04, mothers felt their opinions were considered p<0.001 (mothers), p=0.01 (fathers), participation in doctor visits, respectively p=0.05 (mothers), p<0.001 (fathers), emotion support received from staff		
Tandberg 2019[127]	67%	Norway	Infants	77 infants, 132 parents, 2 hospitals	Infants	Emergency	ICU	p<0.0001, mother's and father's presence in week 1 p<0.0001, mother's and father's presence per day up to week 34		
Tandberg 2019[128]	67%	Norway	Neonates	77 patients, 2 hospitals	Neonates	Emergency	ICU	p<0.001, mother's presence in week 1 p value<0.001, father's presence in week 1 p<0.001, mother's presence overall and continuous p<0.001, father's presence overall and continuous p<0.001, skin-to-skin contact per day in week 1		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								p<0.001, total skin-to-skin contact per day		
Van Veenendaal 2022[138]	70%	Netherlands	Neonates	182 parents, 3 hospitals	Fathers of neonates	Emergency	ICU	p<0.001, p<0.001[a], total presence p<0.001, p<0.001[a], presence >8 h p<0.001, p=0.009[a], total participation p<0.001, p=0.005[a], participation in medical care p=0.23, p=0.04[a], information gathering p<0.001, p=0.005[a], advocacy and leadership p=0.006, p=0.005[a], time spent with neonate	p=0.04, p=0.13[a], participation in daily care p=0.69, p=0.57[a], time spent comforting neonate	
Evidence synthesis										
Adamson 2003[1]	SLR 82%	United States, International	Mixed	Unclear	Mixed	Mixed	Mixed	Interaction with family members and flexibility for accommodating family members		
Dowdeswell 2004[31]	SLR 36%	International	Unclear	Unclear	Mixed	Mixed	Mixed	Qualitative (frequency of visitors, privacy)		
OECD WHO 2019 [92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed	p<0.05, social support Communication with family		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Søndergaard 2022[118]	SLR 91%	International	NR	NR	Acute, Surgical, Internal medicine	Unclear	Routine	Quiet, private, better /easier communication		Not isolated and not lonely
Taylor 2018[129]	SLR 91%	International	NR	NR	Mixed	Mixed	Mixed		All studies reported advantages and disadvantages	

Health Economics Unit

Table 11. Summary of studies reporting patient's views on noise, disturbance and sleep

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed	Patient perceptions (comfort, noise levels, privacy)		
Before and after a hospital relocation										
Carlson 2006[17]	33%	United States	Neonates	Unclear, 1 hospital	Neonates	Emergency	ICU	Patient perceptions (noise levels)		
Carter 2008[18]	33%	United States	Neonates	53 parents, 1 hospital	Neonates	Emergency	NICU	p<0.001, noise level p<0.001, lighting		
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine	*Adequate sleep reported but no comparison with shared room*		
Domanico 2010[28]	63%	United States	Neonates	161 caregivers, 1 hospital, 2 units	Paediatric	NR	NICU	Actual noise levels	Patient perceptions (noise levels) p=0.890, noise disturbance (short stay) p=0.657, noise disturbance (long stay)	
Ferri 2015[41]	100%	Canada	Adults	39 HCPs (13 nurses, 7 respiratory therapists), 5 HCPS (other),	Unclear	Unclear	ICU	Qualitative (less disruption)		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				6 physicians, 4 family members 4 support staff, 1 hospital						
Florey 2009[42]	44%	United Kingdom	Adults	80 patients, 2 hospitals, 1 Before and after move	Medical and surgical, Adults	Unclear	Routine	p=0.019, noise disturbance		
Harris 2004[49]	74%	Canada	Adults	976 patients, 1 hospital, Before and after new unit established	Pregnancy	Maternity	Routine	p<0.001, physicians' perceptions of noise		
Janssen 2000[56]	56%	Canada	Adults	426 patients, 1 hospital, Before and after relocation	Pregnant women	Maternity	Routine	p<0.001, any noise disturbance p<0.001, talking/ visiting by hospital neighbours p=0.08, staff talking at the nursing station p<0.001, crying babies	p=0.30, talking/visiting by hospital staff p=0.28, women in labour	
Maben 2015[76]	78%	United Kingdom	Unclear	24 staff, 32 patients, 1 hospital (relocated), 2 control hospitals	All patients in hospital	Mixed	Mixed	Patient perceived benefit		
Milford 2008[84]	30%	United States	Neonates	Unclear, 1 hospital	Neonates	Emergency	ICU	Higher staff satisfaction		
Pyrke 2017[103]	59%	Canada	Adults	47 patients, 1 hospital relocation	Psychiatric	Emergency	Routine		p=0.399, sleep disturbed p=0.065, time spent asleep	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Real 2018[105]	56%	United States	Unclear	111 patients, 77 nurses, 1 hospital, 1 ward	Cardio-vascular	Unclear	ICU, Routine	Perceived noise level		
Stevens 2011[121]	52%	United States	Neonates	147 patients, 1 hospital Before and after relocation	Neonates	Emergency	ICU	Restfulness		
Stevens 2012[122]	44%	United States	Neonates	73 patients, 1 hospital Before and after relocation	Neonates	Emergency	ICU	p<0.001, actual noise level p<0.05, lighting	Noise level adjacent to baby's ear	
Van Enk 2011[136]	44%	United States	Neonates	90 beds, 1 hospital	Neonates	Emergency	NICU	p=0.04, actual noise level (day time) *p=0.05, less illumination (day time)* *p=0.01, lower temperature (night time)* *p=0.001, lower temperature (day and night combined)* *p<0.0001, lower humidity (night time)*	p=0.35, actual noise level (night time) p=0.08, actual noise level (day or night time) p=0.49, illumination (night time) p=0.60, temperature (day time)	*p<0.0001, lower humidity (day time)* *p<0.0001, lower humidity (day and night combined)*
Walsh 2006[142]	33%	Unclear	Neonates	127 nurses, 1 hospital	Neonates	Emergency	NICU	Actual noise levels		
Contemporaneous comparison										

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Apple 2014[4]	52%	Sweden	Unclear	81 HCP, 3 ICUs	Mixed	Unclear	ICU	Qualitative (privacy, fewer disturbances)		
Bevan 2016[5]	59%	United Kingdom	Adults, elderly	50 patients, 2 hospitals	Acute illness	Emergency	Routine	Qualitative (less noise disturbance)		
Bodack 2016[10]	56%	Germany	Neonates	35 pairs of parents of 40 neonates, 1 hospital	Neonates	Emergency	ICU	Qualitative (fewer disturbances)		
Deitrick 2010[26]	90%	United States	Adults	24 patients, 29 HCP, 2 hospitals, 2 wards	Orthopaedic, Neurological, Surgical	Unclear	Routine			Qualitative (adequate rest and sleep due to the presence of a roommate)
Douglas 2005[30]	90%	United Kingdom	Unclear	785 patients (post discharge), 1 hospital	Surgical, Acute care, Maternity, Geriatric	Unclear	Routine	Fewer night-time disturbances		
Eberhard-Gran 2000[33]	59%	Norway	Adults	160 patients, Unclear (one municipality)	Adults, Pregnant women	Maternity	Routine	More sleep/ rest Enough sleep/ rest (women ≥ 30 years old) OR 8.1, 1.7-39.3 amount of sleep and rest at Akershus	Enough sleep/rest OR 2.9, 0.3-30.3 amount of sleep and rest at Kongsvinger	
Edéll-Gustafsson 2015[34]	90%	Sweden	Neonates	12 parents, 1 unit	Neonates	Emergency	ICU	Qualitative (privacy, personal control)		Qualitative (not confined)
Ehrlander 2009[35]	78%	United States	Adults	117 patients, 1 hospital	Adults	Unclear	Routine	Qualitative (peace and quiet)		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Foo 2022[43]	74%	Australia	Adults	60 patients, 1 hospital	Cardio-respiratory, Obstetric, Sleep disorders, Other	Unclear	Routine		p>0.05, number of interruptions in 24-h p>0.05, number of disturbances at night p=0.11, other measures of discomfort	
Harris 2006[51]	52%	United States	Neonates	21 parents, 75 HCPs	Neonates	Maternity	ICU	Parent satisfaction with physical environment		
Hosseini 2017[52]	63%	Iran	Adults	132 patients, 2 hospitals	Medical, surgical	Unclear	Routine			p<0.001, better scores for sleep disorders
Meyer 1994[83]	59%	United States	Unclear	Unclear, 1 hospital	Mixed	Mixed	Mixed	p<0.05, actual noise levels (day time) p<0.05, actual noise levels (night time) lower maximum illumination (day and night time)	Maximum period of uninterrupted sleep	
Morgan 2010[87]	44%	UK, US	Children	146 patients, 114 HCP, 2 hospitals	Children	Mixed	Routine	Qualitative (quiet sleep)		
Nahas 2016[89]	56%	United Kingdom	Adults, Elderly	60 patients, 2 hospitals	Orthopaedic (elective hip/ knee arthroplasty)	Elective	Routine	p=0.003, good sleep at night	p=0.127, noise level	
Nassery 2019[91]	90%	Sweden	Children	13 interviews (9 individual parents, 4 pairs of	Children	Unclear	Mixed	Less stress sleeping alone		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				parents), 1 hospital						
Olson 1992[93]	52%	United States	Adults	351 patients, 28 HCP, 1 hospital	Pregnant women	Maternity	Routine	*Mothers satisfied with room but no comparison with shared rooms*		
Persson 2012[97]	90%	Sweden	Adults, Elderly	16 patients, 10 nurses 1 hospital, 2 wards	Orthopaedic, Surgical	Unclear	Routine	Less disturbance		
Persson 2015[98]	90%	Sweden	Adults	16 patients, 1 hospital	Surgical	Unclear	Routine	Sleep undisturbed		
Poncette 2021[101]	56%	Germany	Unclear	21 beds, 1 hospital	Unclear	Unclear	ICU			Less alarms raised
Rowlands 2008[110]	90%	United Kingdom	Adults	12 patients, 1 hospital	Adults with advanced cancer	Unclear	Routine	Qualitative (less stress related to disturbing others)		
Sakr 2021[113]	74%	Lebanon	Adults	75 patients, 1 hospital	Internal medicine, Surgical	Mixed	Routine	p=0.011, fewer cases of new onset insomnia	p=0.272, patient perceived impact of room on new onset insomnia	
Stelwagen 2021[120]	100%	Netherlands	Neonates	36 parents, 1 hospital	Neonates	Emergency	ICU	Qualitative (privacy)		Qualitative (less surprise when staff appear at bedside)
Tegnestedt 2013[130]	70%	Sweden	Adults, Elderly	15 patients 1 hospital	Adults	Emergency	ICU		p=0.777 (7am to 3pm), p=0.885(3pm to 11pm), p=0.832 (11pm to 7am), actual noise	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Zaal 2013[145]	67%	Netherlands	Older Adults	156 patients 1 hospital	Older Adults with dementia	Mixed	ICU			p <0.001 lower light intensity
Evidence synthesis										
Dowdeswell 2004[31]	SLR 36%	International	Unclear	Unclear	Mixed	Mixed	Mixed	Quieter (less sleep disturbance, better outcomes)		
OECD WHO 2019[92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed	p<0.05, better sleep		
Søndergaard 2022[118]	SLR 91%	International	NR	NR	Acute, Surgical, Internal medicine	Unclear	Routine	Quieter (less sleep disturbance)		
Taylor 2018[129]	SLR 91%	International	NR	NR	Mixed	Mixed	Mixed		Mixed findings on sleep outcomes	

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Table 12. Summary of studies reporting patients' views on satisfaction with care

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed	Patient preference (privacy, ensuites)		Patient preference (social interaction)
Before and after a hospital relocation										
Campbell-Yeo 2021[15]	74%	Canada	Neonates	71 mothers, 2 wards	Neonates	Emergency	ICU	Postpartum depression scores Post-traumatic stress disorder scores	Parental stressor scores EQ-5D-5L self-reported health	Perceived maternal self-efficacy Intolerance of uncertainty
Carlson 2006[17]	33%	United States	Neonates	1 hospital, Patients unclear	Neonates	Emergency	ICU	Patient perception (improved lighting control)		
Carter 2008[18]	33%	United States	Neonates	53 parents, 1 hospital Before and after relocation	Neonates	Emergency	NICU	p<0.001 parent perceptions of security		
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine	Patient satisfaction but no comparison with shared room		
Florey 2009[42]	44%	United Kingdom	Adults	80 patients, 2 hospitals, 1 Before and after move	Medical and surgical, Adults	Unclear	Routine		patient preference based on previous experience inconclusive	
Janssen 2000[56]	56%	Canada	Adults	426 patients, 1 hospital	Pregnant women	Maternity	Routine	p<0.001, patient opinions in care considered p<0.001, information given to inform choices		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								p<0.001, patient choices supporter by caregivers p<0.001, assistance given to support person p<0.001, comfort measures for labour pain p<0.001, comfort measures for pain after birth		
Jongerden 2013[59]	67%	Netherlands	Adults	387 patients, 323 completed surveys, 1 hospital	Mixed, Adults	Mixed	ICU	p=0.02, overall family satisfaction p=0.007, family satisfaction with care p=0.02, overall patient satisfaction p=0.01, patient satisfaction with care	p=0.12, family satisfaction with decision making p=0.21, patient satisfaction with decision making	
Kainiemi 2021[63]	59%	Finland	Neonates	61 families, 1 hospital, 1 unit (pre-post-restructuring)	Pre-term infants (<35 weeks)	Unclear	NICU		Patient perceptions: (mothers and fathers, respectively) p=0.19, p=0.33, overall scores p=0.11, p=0.94, extent staff listen to mothers/fathers p=0.24, p=0.18, participation in baby's care	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
									p=0.09, p=0.45, guidance provided by staff met needs p=0.71, p=0.16, opinion considered regarding care of baby p=0.51, p=0.16, mothers/fathers trust in staff caring for baby p=0.28, p=0.92, staff trust in mothers/fathers caring for baby p=0.12, p=0.89, participation in discussions during rounds p=0.51, p=0.41, information given by staff met needs p=0.70, p=0.87, staff offer emotional support	
Lawson 2000[69]	41%	United Kingdom	Adults	424 patients, 2 hospitals, 4 wards	Psychiatric and Orthopaedic	Unclear	Routine	Patient perceptions (spatially, visually)		
Lester 2014[72]	63%	United States	Neonates	403 patients, 1 hospital	Neonates	Emergency	ICU	p<0.001, mother's overall satisfaction p<0.0001, mother's stress p<0.001 mother's satisfaction with family-centred care		

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								p<0.0001 mother's involvement in infant care		
Milford 2008[84]	30%	United States	Neonates	No. of patients unclear, 1 hospital	Neonates	Emergency	ICU	Positive staff perceptions		
Real 2018[105]	56%	United States	Unclear	111 patients, 77 nurses, 1 hospital, 1 ward	Cardio-vascular	Unclear	ICU, Routine	p<0.05, patients' satisfaction with design		
Reid 2015[107]	48%	United Kingdom	Adult, Elderly	89 patients, 1 hospital relocation	Geriatric	Rehabilitation	Routine	100% patients prefer private toilet *84.8% of patients in single rooms would prefer single rooms* *37.2% of patients in shared room would prefer single rooms*		
Stevens 2011[121]	52%	United States	Neonates	147 patients, 1 hospital	Neonates	Emergency	ICU	p<0.001, parent satisfaction with environment p=0.018, overall parent satisfaction p=0.04, total parent satisfaction score		
Swanson 2013[125]	37%	United States	Neonates, Carers	55 parents, 1 hospital	Neonates	Emergency	NICU	p<0.05, nurse perception of facilities p<0.05, practitioners' perceptions of facilities		

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								p<0.05, parents' perceptions of facilities		
Contemporaneous comparison										
Bevan 2016[5]	59%	United Kingdom	Adults, Elderly	50 patients, 2 hospitals	Acute illness	Emergency	Routine	Qualitative (privacy, personal control, private toilet) p=0.038, patients perceived a high-level of care		
Boztepe 2017[12]	63%	Turkey	Children	130 patients, 1 hospital, 1 ward	Children	Mixed	Routine		Only 15.4% expected a large or single room	
Deitrick 2010[26]	90%	United States	Adults	24 patients, 29 HCP, 2 hospitals, 2 wards	Orthopaedic, Neurological, Surgical	Unclear	Routine	Patient preference (privacy)		
de Matos 2020[27]	63%	Brazil	Unclear	176 family visitors, 1 hospital, 4 ICU units	Cancer	Unclear	ICU	p=0.02, patient satisfaction Satisfaction of family members		
Douglas 2005[30]	90%	United Kingdom	Unclear	785 patients (post discharge), 1 hospital	Surgical, Acute care, Maternity, Geriatric	Unclear	Routine	Patient satisfaction with needs met		
Eberhard-Gran 2000[33]	59%	Norway	Adults	160 patients, Unclear (one municipality)	Adults, Pregnant women	Maternity	Routine	OR[a] 18, 2.2-149.1 more likely to be satisfied with care	Satisfaction with rooms Satisfaction with sleep and rest Satisfaction with LOS	
Ehrlander 2009[35]	78%	United States	Adults	117 patients, 1 hospital	Adults	Unclear	Routine	Patient preference	p=0.309, fear of dying	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Erdeve 2009[37]	78%	Turkey	Adults, Neonates	60 infants, 49 mothers, 2 hospitals	Preterm neonates	Emergency	NICU		p=0.206, depression scores p=0.06, postpartum depression rate p=0.161, vulnerable child scores p=0.219, parenting stress scores	
Harris 2006[50]	63%	United States	Neonates	75 HCP, 21 parents, 5 NICU units (SFR=2, open bay=3)	Neonates	Unclear	Level 3, NICU	p<0.05, window view and proximity to infant during sleep Less stressful and less depressing		
Harris 2006[51]	52%	United States	Neonates	21 parents, 75 HCPs	Neonates	Maternity	ICU	Less stressful and less depressing, better physical environment.		
Hosseini 2017[52]	63%	Iran	Adults	132 patients, 2 hospitals	Medical, Surgical	Unclear	Routine	p<0.001, patients' overall satisfaction p<0.001, patients' total satisfaction		
Janssen 2006[57]	59%	Canada	Adults	415 patients, 1 hospital, 2 wards	Pregnant women	Maternity	Routine	p<0.001, patients' overall satisfaction p<0.001, confidence in neonatal care p<0.001, provision of choice p<0.001, physical environment		
Labarère 2004[68]	70%	France	Adults	4095 patients, 1 hospital	Mixed	Mixed	Mixed	p<0.01, overall patient experience		

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Miller 1998[85]	59%	United States	Adolescents, Adults	94 patients, 1 hospital	Inpatients, Outpatients	Unclear	Routine	% patients overall stating ideal rooming arrangements % inpatients stating ideal rooming arrangements % female inpatients stating ideal rooming arrangements % inpatients aged 15 to 17 and 18 to 21 stating ideal rooming arrangements % female outpatients stating ideal rooming arrangements	% outpatients aged 12 to 14 stating ideal rooming arrangements	% male inpatients and outpatients stating ideal rooming arrangements % inpatients aged 12 to 14 stating ideal rooming arrangements % outpatients stating ideal rooming arrangements % outpatients aged 15 to 17 and 18 to 21 stating ideal rooming arrangements
Morgan 2010[87]	44%	UK, US	Children	146 patients, 114 HCP, 2 hospitals	Children	Mixed	Routine			% patient preference
Nahas 2016[89]	56%	United Kingdom	Adults, Elderly	60 patients, 2 hospitals	Orthopaedic (elective hip/ knee arthroplasty)	Elective	Routine	*p*=0.014, feeling of safety Qualitative (privacy, security, pain management, cleanliness)	*p*=0.061, overall patient satisfaction	
Nash 2021[90]	63%	Australia	Adults	602 patients, 4 hospitals	Unclear	Unclear	Routine			Patient preference
Nassery 2019[91]	90%	Sweden	Children	13 interviews (9 individual parents, 4 pairs of	Children	Unclear	Mixed	Parents preference		

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				parents), 1 hospital						
Olson 1992[93]	52%	United States	Adults	351 patients, 28 HCP, 1 hospital	Pregnant women	Maternity	Routine	Nurse preference *Mother satisfaction*		
Pease 2002[96]	48%	United Kingdom	Unclear	50 patients, 1 hospital	Oncologic, Terminal	Unclear	Routine	Family preference		Patient preference
Persson 2012[97]	90%	Sweden	Adults, Elderly	16 patients, 10 nurses, 1 hospital, 2 wards	Orthopaedic, Surgical	Unclear	Routine			Qualitative (security and safety)
Persson 2015[98]	90%	Sweden	Adults	16 patients, 1 hospital	Surgical	Unclear	Routine			Qualitative (security, company, not isolated)
Pineda 2012[100]	70%	United States	Neonates	81 patients, 1 hospital	Premature neonates	Emergency	NICU		p=0.512, maternal depression p=0.152, trait anxiety p=0.830, state anxiety p=0.071, life stress p=0.603, avoidance coping p=0.967, emotion-oriented coping p=0.506, task-oriented coping p=0.951, social support	p=0.040[a], stress levels
Roos 2020[108]	90%	Norway	Adults	39 patients, 1 hospital relocation	Internal medicine, Surgical, Maternity	Maternity, Unclear	Routine			Satisfaction for older/bedridden patients

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Rowlands 2008[110]	90%	United Kingdom	Adults	12 patients, 1 hospital	Adults with advanced cancer	Unclear	Routine		Qualitative (desire for choice of room)	
Stelwagen 2021[120]	100%	Netherlands	Neonates	36 parents, 1 hospital Before and after relocation	Neonates	Emergency	ICU	Qualitative (privacy, safety, homeliness, feelings of central engagement with child care)		
Tandberg 2019[127]	67%	Norway	Infants	77 infants, 132 parents, 2 hospitals	Infants	Emergency	ICU	Mothers: p=0.005, depression at day 14 p=0.04, anxiety at day 14 p=0.0001, role alteration at day 14 p=0.06, role alteration at discharge Fathers: p=0.06, environmental stress at day 14 p=0.003, role alteration at day 14 p=0.003, environmental stress at discharge p=0.004, role alteration at discharge	Mothers: p=0.12 Maternal distress at day 14 p=0.43 depression, and p=0.48, anxiety at discharge p=0.13, distress at discharge p=0.65, depression and p=0.54, anxiety at 4-month corrected age p=0.60, distress at 4-month corrected age p=0.62, dysfunctional interaction with child p=0.23, perceived child to be difficult p=0.42, stress p=0.51, attachment	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
									Fathers: p=0.17, depression and p=0.25, anxiety at day 14 p=0.57, depression and p=0.73, anxiety at discharge p=0.92, depression and p=0.11, anxiety at 4-month corrected age p=0.16, dysfunctional interaction with child p=0.77, perceived child to be difficult p=0.68, stress p=0.49, attachment	
Van Veenendaal 2022[138]	70%	Netherlands	Neonates	182 parents, 3 hospitals	Fathers of neonates	Emergency	ICU	p=0.001[a], stress overall p=0.011[a], stress related to environment p<0.001[a], stress related to role alteration	p=0.83[a], depression and anxiety p=0.26[a], self-efficacy p=0.27[a], impaired parent-newborn bonding p=0.32, satisfaction with care	
Watson 2014[144]	44%	Canada	Neonates	85 families, 1 hospital	Neonates	Emergency	NICU	p=0.008, privacy p=0.0001, comfort p=0.009, interaction with other families	p=0.05, getting to know baby p=0.05, feeling irritable, anxious, depressed or sad	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								p=0.04. confidence feeding baby p=0.04, easy to comfort baby *p=0.003, family adjusted to having the baby home*	p=0.05, satisfied with care baby received	
Economic analysis										
Boardman 2011[8]	91%	Canada	Unclear	537 beds, 1 hospital	Mixed	Mixed	Mixed	Patients and willingness to pay for single over shared rooms		
Evidence synthesis										
Bradbury-Jones 2013[14]	SLR 86%	International	Adults	NR	Mixed, Vulnerable, Learning difficulties	Unclear	Unclear		Mixed views among patients with learning disabilities	
Dowdeswell 2004[31]	SLR 36%	International	Unclear	Unclear	Mixed	Mixed	Mixed	Quicker mobility recovery Sense of self-reliance Personal control leads to happier patients.		
OECD WHO 2019[92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed	12 studies showed single rooms positively affect patient satisfaction	4 studies showed no difference	1 study showed single rooms don't positively affect patient satisfaction
Søndergaard 2022[118]	SLR 91%	International	NR	NR	Acute, Surgical, Internal medicine	Unclear	Routine			Communication and interaction with kindred spirits was appreciated

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
										Bedridden / older patients were less satisfied with single rooms.
Taylor 2018[129]	SLR 91%	International	NR	NR	Mixed	Mixed	Mixed	Patient perceptions of dignity		
Voigt 2018[141]	SLR 86%	International	NR	NR	NR	Unclear	Routine	1 study found advantages for feelings of safety 1 study found advantages for patient preference 1 study found advantage or no difference for patient preference	1 study found mixed findings for feelings of safety All studies found mixed findings regarding concern for others 1 study found mixed findings for patient preference	

Health Economics Unit

Table 13. Summary of studies reporting data on patient monitoring and safeguarding

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed		*Qualitative (regular visits by staff to single-rooms)*	
Before and after a hospital relocation										
Real 2018[105]	56%	United States	Unclear	111 patients, 77 nurses, 1 hospital, 1 ward	Cardio-vascular	Unclear	ICU, Routine		Staffing ratio	
Jansen 2021[55]	63%	Netherlands	Neonates	712 patients 1 hospital, 2 units	Premature neonates	Maternity care	NICU		Nurse-to-patient ratio	
Jones 2016[58]	100%	Australia	Neonates	66 mothers, 51 nurses, 1 hospital relocation	Adults, Mothers of premature neonates, Nurses	Maternity	NICU			Nurse perception (parallel patient interactions, get caught in single rooms so can't attend to other families)
Jung 2022[62]	67%	South Korea	Adults	901 patients, 1 hospital	Mixed	Unclear	ICU		Nurse-to-patient ratio	
Contemporaneous comparison										
Bevan 2016[5]	59%	United Kingdom	Adults, Elderly	50 patients, 2 hospitals	Acute medical illness	Emergency	Routine	Patient perceptions (isolation)		
Bodack 2016[10]	55%	Germany	Neonates	35 pairs of parents	Premature neonates	Maternity care	NICU	Somewhat less frequent		

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
								adequate monitoring		
Bracco 2007[13]	74%	Canada	Adults	2522 patients (of whom 207 known MRS carriers at admission), 1 hospital, 1 ward	Mixed, Post surgery, Medical admission	Mixed	ICU	*Standard nurse-to-patient ratio 1:2*		
Ehrlander 2009[35]	78%	United States	Adults	117 patients, 1 hospital	Mixed	Unclear	Routine	p=0.025, patient perception of nurse availability		
Deitrick 2010[26]	90%	United States	Adults	24 patients, 29 HCP, 2 hospitals, 2 wards	Orthopaedic, Neurological, Surgical	Unclear	Routine	Better response to call lights. More visits to anticipate patient needs.		
Hosseini 2017[52]	63%	Iran	Adults	132 patients, 2 hospitals	Medical, Surgical	Unclear	Routine	p=0.19, access to nurses		
Julian 2015[61]	78%	United States	Neonates	1823 patients 1 hospital, 1 unit	Neonates	Mixed	NICU		Nurse-to-patient ratio	
Nahas 2016[89]	56%	United Kingdom	Adults, Elderly	60 patients, 2 hospitals	Orthopaedic (elective hip/ knee arthroplasty)	Elective	Routine		p=0.244, response to call bell	
Early vs late response to new unit design										

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Ferri 2015[41]	100%	Canada	Adults	39 HCPs, of which 13 nurses, 7 respiratory therapists, 5 HCPS (other), 6 physicians, 4 family members 4 support staff 1 hospital, 1 unit	Unclear	Unclear	ICU	75 negative comments on shared-room design		Qualitative (less safety concerns related to distance between patient and care provider)

Health Economics Unit

Table 14. Summary of studies reporting views on patient confidentiality

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus Contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed	Qualitative (confidentiality)		
Before and after a hospital relocation										
Ferri 2015[41]	100%	Canada	Adults	39 HCPs, of which 13 nurses, 7 respiratory therapists, 5 HCPS (other), 6 physicians, 4 family members 4 support staff, 1 hospital	Unclear	Unclear	ICU	Qualitative (patient perceptions of confidentiality)		
Jones 2016[58]	100%	Australia	Neonates	66 mothers, 51 nurses, 1 hospital relocation	Adults, Mothers of premature neonates, Nurses	Maternity	NICU	Qualitative (nurse perceptions of confidentiality, facilitating care)		
Florey 2009[42]	44%	United Kingdom	Adults	80 patients, 2 hospitals, 1 move	Medical and surgical, Adults	Unclear	Routine	p<0.001 ability to have confidential discussions		
Real 2018[105]	56%	United States	Unclear	111 patients, 77 nurses, 1 hospital, 1 ward	Cardio-vascular	Unclear	ICU, Routine		Patient satisfaction with confidentiality	

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Roos 2020[108]	90%	Norway	Adults	39 patients, 1 hospital relocation	Internal medicine, Surgical, Maternity	Maternity, Unclear	Routine	Qualitative (patient perceptions of confidentiality)		
Contemporaneous comparison										
Bodack 2016[10]	56%	Germany	Neonates	35 pairs of parents of 40 neonates, 1 hospital	Neonates	Emergency	ICU	Qualitative (easier to guarantee confidentiality)		
Bevan 2016[5]	59%	United Kingdom	Adults, Elderly	50 patients, 2 hospitals	Acute illness	Emergency	Routine	Qualitative (patient perceptions of confidentiality)		
Hosseini 2017[52]	63%	Iran	Adults	2 hospitals 132 patients	Adults, Medical or surgical	Unclear	Routine	p<0.001 comfortable discussing personal problems		
Malcolm 2005[78]	80%	New Zealand	Adolescents, Adults	12 former patients	Mixed surgery, orthopaedic, medical, obstetric, ENT	Mixed	Routine	Qualitative (patients in shared rooms felt a lack of privacy and confidentiality which affected relationships with other patients)		
Evidence synthesis										
OECD WHO 2019[92]	Report 14%	Europe	NR	NR	Mixed	Mixed	Mixed	p<0.05, improved patient confidentiality		

Health Economics Unit

Table 2. Summary of studies reporting data on availability of beds, space requirements, and capital costs

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed			Higher space requirement for single-bed wards Building costs per bed
Before and after a hospital relocation										
Darley 2018[24]	56%	United Kingdom	Unclear	1 hospital relocation	Unclear	Unclear	Routine	Ward closures per year Bed days lost per 100,000		
Domanico 2011[29]	63%	United States	Neonates	162 patients (PEMRs 2/3=150, PEMRs 4=12), 1 hospital, 2 units	Paediatric	NR	NICU	Number of patients accommodated; Total space		
Jones 2016[58]	100%	Australia	Neonates	66 mothers, 51 nurses, 1 hospital relocation	Adults, Mothers of premature neonates, Nurses	Maternity	NICU	Capacity		Room space
Jongerden 2013[59]	67%	Netherlands	Adults	387 patients, 323 completed surveys, 1 hospital Before and after relocation	Mixed, Adults	Mixed	ICU	Number of beds Space per bed		
Jung 2022[62]	67%	Korea	Adults	901 patients, 1 hospital Before and after renovation	Adult, mixed	Unclear	ICU		Number of isolated rooms	Number of beds
Kosuge 2013[67]	41%	Japan	Unclear	555 beds, 1 hospital	Surgical, Internal medicine	Unclear	Routine	Number of beds (working, general, per nursing unit) Wards in total	Number of beds (tuberculosis)	Number of beds (mental, cases of floor transfer)

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
									Total number of people / day and the wards	
Lawson 2000[69]	41%	United Kingdom	Adults	424 patients, 2 hospitals, 4 wards (pre-/post-relocation)	Orthopaedic	Unclear	Routine	Number of beds		
Real 2018[105]	56%	United States	Unclear	111 patients, 77 nurses, 1 hospital, 1 ward	Cardio-vascular	Unclear	ICU, Routine	Qualitative (larger rooms promote more space for family)		
Rosbergen 2020[109]	74%	Australia	Adults, Elderly	73 patients, 1 hospital relocation	Stroke, Neurological	Emergency, Rehabilitation	Routine	p=0.007, number of single bedrooms in acute stroke unit/ neurology p<0.001, number of single bedrooms in inpatient rehab unit Ward length Total communal floor space	Number of any bedrooms, acute stroke unit/ neurology	Number of any bedrooms, inpatient rehabilitation unit
Contemporaneous comparison										
Julian 2015[61]	78%	United States	Neonates	1823 patients, 1 hospital, 1 unit	Neonates	Mixed	NICU			Bed capacity
Kinnula 2008[64]	63%	Finland	Children	1927 patients, 1 hospital	Children, infectious disease	Mixed	Routine	Single rooms usage (approx. 90%)	Number of rooms	
Kinnula 2012[65]	67%	Finland, Switzerland	Children	5119 patients, 3 hospitals, 4 wards	Children, mixed	Mixed	Routine			Bed capacity
Pineda 2012[100]	70%	United States	Neonates	81 patients, 1 hospital	Premature neonates	Emergency	NICU			Number of beds; Room/ward area

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Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Quach 2018[104]	59%	Canada, United States	Children	83,334 patient-days, 2 hospitals	Children	Mixed	Mixed			Bed capacity
Stelwagen 2021[120]	100%	Netherlands	Neonates	36 parents, 1 hospital	Neonates	Emergency	ICU	Capacity; Room/ward area		

Health Economics Unit

Table 16. Summary of studies reporting data on length of stay

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus contemporaneous comparison										
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed	LOS (per 1,000 patient-days): new hospital older people's ward, control new-build hospital older people's ward, steady-state control hospital medical assessment unit		LOS (per 1,000 patient-days): new hospital assessment unit, control new-build hospital medical assessment unit, steady-state control hospital older people's ward
Before and after a hospital relocation										
Blandfort 2019[6]	67%	Denmark	Elderly	964 patients, 2 hospitals	Geriatric, Dementia	Elective	Routine	p=0.35, median LOS		
Blandfort 2019[7]	67%	Denmark	Elderly	1014 patients, 2 hospitals	Geriatric, Dementia	Elective	Routine	Fewer cases with LOS ≥ 14 days	Minimum LOS	Maximum LOS
Cantoni 2009[16]	67%	Switzerland	Adults	227 patients, 1 hospital	Stem cell transplant	Elective	Routine	LOS Duration of catheterisation Number of patients catheterised		
Carter 2008[18]	33%	United States	Neonates	53 parents, 1 hospital Before and after relocation	Neonates	Emergency	NICU	LOS		
Davis 2019[25]	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine		p=0.698, ward LOS p=0.226, hospital LOS	
Domanico 2010[28]	63%	United States	Neonates	161 caregivers, 1 hospital, 2 units	Paediatric	NR	NICU	LOS		
Domanico 2011[29]	63%	United States	Neonates	162 patients (PEMRs 2/3=150,	Paediatric	NR	NICU		p=0.340, LOS for PEMR 2 and 3 patients	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				PEMRs 4=12), 1 hospital, 2 units					p=0.890, LOS for PEMR 4 patients	
Erickson 2011[38]	67%	United States	Neonates	73 patients, 1 hospital Before and after relocation	Preterm neonates	Emergency	NICU		*p*=0.73, LOS	
Gregersen 2021[46]	70%	Denmark	Elderly	446 patients, 1 hospital relocation	Geriatric	Unclear	Routine		*p*=0.50, hospital LOS	
Harris 2004[49]	74%	Canada	Adults	976 patients, 1 hospital, Before and after new unit established	Pregnancy	Maternity	Routine	p<0.001, total LOS p<0.001, postpartum LOS		p=0.01, length of first stage labour p=0.002, length of second stage labour p=0.002, intrapartum LOS
Hourigan 2018[53]	63%	United States	Neonates	32 patients, 1 hospital Before and after relocation	Neonates	Emergency	ICU		p=0.52, LOS	
Jansen 2021[55]	63%	Netherlands	Neonates	712 patients, 1 hospital, 2 units relocation	Premature neonates	Maternity	NICU		p=0.36, hospital LOS	
Jongerden 2013[59]	67%	Netherlands	Adults	387 patients, 323 completed surveys, 1 hospital Before and after relocation	Mixed, Adults	Mixed	ICU		p=0.25, ICU LOS: family p=0.11, ICU LOS: patients p=0.25, hospital LOS: family p=0.60, hospital LOS: patients	
Jung 2022[62]	67%	Korea	Adults	901 patients, 1 hospital Before and after renovation	Adult, mixed	Unclear	ICU		p=0.575, ICU LOS	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Kainiemi 2021[63]	59%	Finland	Neonates	61 families, 1 hospital, 1 unit (pre-post-restructuring)	Pre-term infants (<35 weeks)	Unclear	NICU		p=0.1784, hospital LOS	
Kosuge 2013[67]	41%	Japan	Unclear	555 beds, 1 hospital	Surgical, Internal medicine	Unclear	Routine	Average hospital LOS (surgery, internal medicine)		
Lawson 2000[69]	41%	United Kingdom	Adults	424 patients, 2 hospitals, 4 wards (pre-/post-relocation)	Psychiatric and Orthopaedic	Unclear	Routine	p<0.05, hospital LOS (orthopaedic patients not undergoing operation) Hospital LOS overall (psychiatric patients) ICU LOS (psychiatric patients)	Hospital LOS (orthopaedic patients undergoing operation)	
Milford 2008[84]	30%	United States	Neonates	No. of patients unclear, 1 hospital Before and after relocation	Neonates	Emergency	ICU	Average LOS		
Monson 2018[86]	78%	United States	Neonates	90 preterm infants, 15 term-born control infants, 1 hospital	Preterm neonates	Emergency	NICU		p=0.81, LOS	
Puumala 2020[102]	67%	United States	Neonates	9995 patients, 1 hospital Before and after relocation	Neonates	Emergency	ICU	p=0.02, LOS for extremely preterm infants p<0.0001, LOS for very preterm infants	p=0.71, LOS for moderately pre-term	p<0.0001, overall median hospital LOS p<0.0001, LOS for term/post term infants
Pyrke 2017[103]	59%	Canada	Adults	47 patients, 1 hospital relocation	Psychiatric	Emergency	Routine		*p*=0.832, LOS	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Sadatsafavi 2019[112]	100%	United States	Neonates	NR, 1 hospital (theoretical)	Neonates	NR	ICU	Mean benefit–cost ratio 1.298 (95% CI: 1.282–1.315) when reduced LOS considered		
Singh 2015[116]	70%	United Kingdom	Adults, Elderly	1749 patients, 1 hospital relocation	Internal medicine, Geriatric	Mixed	Routine	p<0.01, LOS		
Stevens 2014[123]	44%	United States	Neonates	73 patients, 1 hospital	Neonates	Emergency	ICU			p=0.0052, hospital LOS
Teltsch 2011[131]	67%	Canada	Adults	19343 patients, 2 hospitals, Before and after relocation or control	Adults	Unclear	ICU			Average ICU LOS (year 2000, 2001, 2002, 2003, 2004, 2005, and total)
van der Hoeven 2022[135]	63%	Netherlands	Infants	1293 infants, 1 hospital Before and after relocation	Infants	Unclear	ICU		p=0.49, hospital LOS	
van Veenendaal 2020[137]	70%	Netherlands	Neonates	1152 infants, 1 hospital Before and after relocation	Neonates	Emergency	ICU	p=0.016, LOS		
Vietri 2004[139]	59%	United States	Adults	261 Adults, 1 hospital Before and after relocation	Mixed	Unclear	ICU		p=NS, ICU LOS	
Contemporaneous comparison										
Bodack 2016[10]	56%	Germany	Neonates	35 pairs of parents of 40 neonates, 1 hospital	Neonates	Emergency	ICU	LOS		
Bracco 2007[13]	74%	Canada	Adults	2522 patients (of whom 207 known MRS carriers at	Mixed, Post surgery, Medical admission	Mixed	ICU	*LOS in the same bed*	LOS	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
				admission), 1 hospital, 1 ward						
Caruso 2014[19]	74%	Brazil	Adults	1253 patients, 1 hospital	Adults	Mixed	ICU		p=0.44, ICU LOS	
Deitrick 2010[26]	90%	United States	Adults	24 patients, 29 HCP, 2 hospitals, 2 wards	Orthopaedic, Neurological, Surgical	Unclear	Routine	LOS		
Douglas 2005[30]	90%	United Kingdom	Unclear	785 patients (post discharge), 1 hospital	Surgical, Acute care, Maternity, Geriatric	Unclear	Routine		LOS	
Erdeve 2008,[36] Erdeve 2009[37]	74%	Turkey	Adults, Neonates	60 infants, 49 mothers, 1 hospital	Preterm neonates	Emergency	NICU		p=0.929, NICU LOS	
Felice Tong 2018[40]	78%	Australia	Adults	185 patients, 1 hospital	Orthopaedic	Elective	Routine		p=0.36, overall LOS p=0.73, LOS for total hip arthroplasty p=0.55, LOS for knee arthroplasty	
Grundt 2021[47]	67%	Norway	Neonates	77 patients, 66 mothers, 2 hospitals, 2 units	Premature neonates	Maternity	NICU		p=0.16, LOS	
Harris 2006[50]	63%	United States	Neonates	75 HCP, 21 parents, 5 NICU units (SFR=2, open bay=3)	Neonates	Unclear	Level 3, NICU	Patient transfers		Average LOS Average discharges
Harris 2006[51]	52%	United States	Neonates	21 parents, 75 HCPs	Neonates	Maternity	ICU			Average LOS
Hyun 2021[54]	78%	South Korea	Adults	666 patients, 1 hospital	Respiratory, COVID-19	Emergency	ICU	p=0.001, hospital LOS		
Kinnula 2008[64]	63%	Finland	Children	1927 patients, 1 hospital	Children, infectious disease	Mixed	Routine		hospital LOS	

Health Economics Unit

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Kinnula 2012[65]	67%	Finland, Switzerland	Children	5119 patients, 3 hospitals, 4 wards	Children, mixed	Mixed	Routine			Mean hospital LOS
Knight 2016[66]	59%	United Kingdom	Elderly	100 patients, 2 hospitals	Geriatric, Dementia	Mixed	Routine			p=0.001, overall LOS p=0.01, LOS (patients who experienced an inpatient fall)
Labarère 2004[68]	70%	France	Adults	4095 patients, 1 hospital	Mixed	Mixed	Mixed		hospital LOS	
Lehtonen 2020[71]	74%	International	Neonates	4662 patients, 331 units	Preterm neonates	Emergency	ICU	Overall LOS OR[a] –3.4 (–4.7 to –3.1)		
Mattner 2007[79]	74%	Germany	Adults	336 patients, 1 hospital	Cardiovascular Adults	Mixed	ICU	p=0.004, LOS		
Vohr 2017[140]	67%	United States	Neonates	651 patients, 1 hospital Before and after relocation	Neonates	Emergency	NICU			p=0.07, hospital LOS
Tandberg 2019[128]	67%	Norway	Neonates	77 patients, 2 hospitals	Neonates	Emergency	ICU		p=0.16, LOS	
Lester 2014[72]	63%	United States	Neonates	403 patients, 1 hospital	Neonates	Emergency	ICU		p=0.382, LOS	
Lester 2016[73]	59%	United States	Neonates	216 patients, 1 hospital	Premature neonates	Maternity	ICU		p=0.06, LOS	
Zaal 2013[145]	67%	Netherlands	Older Adults	156 patients 1 hospital	Older Adults with dementia	Mixed	ICU		p=0.56, LOS	
Evidence synthesis										
OECD WHO 2019[92]	14%	Europe	NR	NR	Mixed	Mixed	Mixed		p=NS. LOS	
Voigt 2018[141]	86%	International	NR	NR	NR	Unclear	Routine		LOS	

Health Economics Unit

Table 17. Summary of studies reporting data on costs of care

Citation	QA	Location	Population	Number of patients/ hospitals	Patient type	Type of admission	Level of care	Data that favour single room	Data showing no difference	Data that favour shared room
Before and after a hospital relocation plus contemporaneous comparison										
Maben 2015[76]	78%	United Kingdom	Unclear	24 staff, 32 patients, 1 hospital (relocated), 2 control hospitals	All patients in hospital	Mixed	Mixed		Cost impact (changes in falls, LOS, medication errors, hospital-acquired infections)	
Maben 2016[77]	67%	United Kingdom	Unclear	32 patients, 21 HCP, 1 hospital relocation, 2 control hospitals	Mixed	Unclear	Mixed			Cleaning costs per bed Nursing staff full-time equivalent Nursing staff costs
Before and after a hospital relocation										
Davis [25]2019	67%	Australia	Adults	1569 patients, 1 hospital relocation	Orthopaedic	Elective	Routine		p=0.311, discharge to home p=0.406, transfer to other facility	
Harris 2004[49]	74%	Canada	Adults	976 patients, 1 hospital, Before and after new unit established	Pregnancy	Maternity	Routine	Reduction in overall staffing costs after opening single-room maternity care		
Milford 2008[84]	30%	United States	Neonates	No. of patients unclear, 1 hospital	Neonates	Emergency	ICU	Cost savings due to reduced LOS		
Reed 1986[106]	10%	United States	Adults	No. of patients unclear, 1 hospital	Pregnant women	Maternity care	Routine	Number of staff required		
Sadatsafavi 2019[112]	100%	United States	Neonates	1 hospital (theoretical)	Neonates	NR	ICU	Investment justifiable when direct costs considered, mean benefit–cost ratio 1.794 (1.783–1.804) Investment justifiable when LOS considered		Investment not justifiable when nosocomial infections considered, mean benefit–cost ratio 0.730 (0.724-0.735)

Health Economics Unit

Singh 2015[116]	70%	United Kingdom	Adults, Elderly	1749 patients, 1 hospital relocation	Internal medicine, Geriatric	Mixed	Routine		p=0.74, discharge to home p =0.21, discharge to new care home	
Stevens 2012[122]	44%	United States	Neonates	73 patients, 1 hospital Before and after relocation	Neonates	Emergency	ICU	Direct cost (infants with equal comorbidities, duration of hospitalisation)	Costs per square foot	[a]=statistically significant, need for nursing and all unit staff
Stevens 2014[123]	44%	United States	Neonates	73 patients, 1 hospital	Neonates	Emergency	ICU	p<0.0001, lower costs for supplies p<0.0001, lower depreciation in costs Full adjustment of the model shows a cost advantage for SFR	p=0.2316, total direct costs p=0.1551, other costs General linear model: p=0.2854, admission p=0.2485, severity p=0.2806, duration of respiratory support	p=0.0373, direct costs for NICU labour p=0.0002, direct costs for other labour costs (therapies, radiology, pharmacy)
Contemporaneous comparison										
Apple 2014[4]	52%	Sweden	Unclear	81 HCP, 3 ICUs	Mixed	Unclear	ICU			Number of staff equired
Boardman 2011[8]	91%	Canada	Unclear	537 beds, 1 hospital	Mixed	Mixed	Mixed	Reduced transfers and waiting time Net social benefits taking into account upfront and ongoing costs and annual benefits		Cost of a bed per day Up-front land and construction costs On-going annual maintenance, housekeeping, operating, additional nursing and phsycian costs
Felice Tong 2018 [40]	78%	Australia	Adults	185 patients, 1 hospital	Orthopaedic	Elective	Routine	p=0.002[u], p=0.002[m] discharge to rehabilitation		
Harris 2006[50]	63%	United States	Neonates	75 HCP, 21 parents, 5 NICU units (SFR=2, open bay=3)	Neonates	Unclear	Level 3, NICU			Construction costs per square foot
Harris 2006[51]	63%	Canada	Adults	976 patients, 1 hospital, Before and	Pregnancy	Maternity	Routine			Average costs per square foot[a]

Health Economics Unit

				after new unit established						
Knight 2016[66]	59%	United Kingdom	Elderly	100 patients, 2 hospitals	Geriatric, Dementia	Mixed	Routine		p=0.17, discharged to home p=0.19, discharged to new care home	
Sadatsafavi 2016[111]	100%	Canada	Unclear	8811 patient-days, 1 hospital	Medical and surgical	Unclear	ICU	Costs due to hospital acquired infection		Construction and operating costs
Evidence synthesis										
Adamson 2003[1]	82%	United States, International	Mixed	Unclear	Mixed	Mixed	Mixed			Costs per patient by floor plan type
Voigt 2018[141]	86%	International	NR	NR	NR	Unclear	Routine	Operational efficiencies		

Health Economics Unit

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