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**Characteristics of studies**

Reference	Study type	Isolated	Non isolated
Colorado (2014)	Retrospective matched case control study. Rehabilitation facility- tertiary centre United States July 2009 to December 2010	N20 Patients in contact isolation	N=20 Matched to patients not in contact isolation based on age, rehabilitation diagnosis, and type of insurance
Croft (2015)	Prospective cohort Medical or surgical inpatients admitted to non-intensive care unit hospital wards, United States. January to November 2010.	N=148 Patients on contact precautions Age: 52 (13.8) % male: 53.4	N=148 Individually matched by after an initial 3-day length of stay to patients not on contact precautions. Age 52.3 (14.6) % male: 46.6
Dashiell-Earp (2014)	Collected real-time data on the location of 15 internal medicine interns, United States. October 1, 2012 to December 31, 2012	1156 encounters	2467 encounters
Day (2011)	Patients admitted to the general acute care units, United States. June 1, 2009 to October 30, 2009	N=20 Age: 68.5 (14.7) % male: 85.0	N=83 Age: 63.9 (12.6) % male: 95.2
Day (2011)	A two-year retrospective cohort Tertiary care, United States.. All general inpatients over 18 years hospitalized for >24 h February 1, 2007 to January 31, 2009.	Contact precautions private room when possible, can be cohorted General N = 3138 Age: 51.2 (17.5) % male 58.9 ITU N=1694 Age: 54.9 (17.5) % male 61.0	General N = 25 426 Age: 49.6 (19.0) % male 46.3% ICU N = 5 854 Age: 56.0 (17.7) % male 59.7
Day (2012)	2-year retrospective cohort study of all non-psychiatric hospital admissions >18 years, United States. February 1, 2007 to January 31, 2009	N = 9 684 Contact precautions as above Mean age: 50.1 (18.8) % male 51.4	N = 50 458 Mean age: 52.3 (16.9) % males 59.1
Day (2013)	Longitudinal frequency-matched cohort study of patients admitted to general medical and surgical units, United States. Day 0, day 3 then weekly. January to November 2010	N = 148 Mean age: 52.0 (13.9) % male 58.1	N = 148 Mean age: 52.3 (14.6) % male 50.7

Evans (2003)	Prospective observation; survey; retrospective review, United States. Tertiary care. June and July 2001	N = 48 Mean age: 47.8 (2) % male 85%	N = 48 Mean age: 58.3 (2.4) % male 75%
Findink (2012)	Non-random quasi-experiment, Turkey Age 18 to 65 Administered day 5 January 1, 2009 to December 31, 2009	N = 60 Mean age: 53.95 (18.4) % male 75%	N = 57 Mean age: 56.14 (17.1) % male 76.3%
Gammon (1998)	Quasi experiment Selected if last two numbers on their case notes even. Two large District General Hospitals and one elderly care hospital, United Kingdom	N = 20 Placed in isolation for a minimum of 7days Mean age: 61 years % male: 65	N = 20 Mean age: 52 years % male: 55
Gandra (2014)	Retrospective hospital-wide cohort study, United States. All patients admitted to medical-surgical inpatient units November 1, 2009 to October 31, 2011	Falls N=77 Mean age: 66.1 (14.3) % male: 61% Pressure ulcers N=82 Mean age: 64.5 (15.5) % male: 63	Falls N=82 Mean age: 63.7 (15.8) % male: 51 (62%) Pressure ulcers N=71 Mean age: 65.7 (15) % male: 57
Guilley-Lerondeau (2017)	Matched cohort study with prospective inclusions Interview 3 days after commencing General sample. France March to July 2012	N=30 First prescription of isolation precaution Median age (range) 69 (32 to 91) % male 47	N=60 Median age (range) 64 (24 to 91) % male 53
Kennedy (1997)	Cross-sectional matched-control study, United Kingdom. May 1994 to November 1996	N = 16 Isolated as a result of being MRSA Mean age: 31.1 All male	N = 16 Matched for age, sex, level of injury, and time since admission or injury
Kirkland (1999)	Observational study - 7 months Medical intensive-care, United States	N=14	N=21
Lau (2016)	Prospective cohort study. Adult patients discharged from internal medicine wards, Canada October 2013 to November 2014,	N=75 Mean age 60.35 (17.83) % male 59	N=420 Mean age 63.31 (18.69) % male 48%
Livorsi (2015)	Case-control study Retrospective January 1, 2012 to	N = 70 On contact precautions for MRSA throughout	N = 139 No significant differences between isolated and

	May 31, 2012/prospective June 1, 2012 to March 31, 2013 'safety-net facility', United States	their hospital stay. Found to be MRSA positive during a previous hospitalization or as an outpatient, not current case	non-isolated patients
Lupión-Mendoza (2015)	Matched case-control study Tertiary hospital, Spain 2011 and 2012	N = 72 Adult patients admitted in isolation for $\geq 5$ days. Median age (range) 62 (21-93) % male 73%	N = 72 Median age (range) 69 (23-89), % male 68.1%
Massee (2013)	Retrospective case-control Tertiary care, Canada	N = 111 Matched MRSA patients with an admission diagnosis of heart failure or COPD to similar non-isolated controls Median age (IQR) 80.0 (69.0-86.0) % male 60.4%	N = 111 Median age (IQR) 80.0 (68.0-86.0) % male 60.4%
Mehrotra (2013)	Prospective cohort Admission and on days 3, 7, 14 Tertiary centre, United States	N = 238 Segregation into a private or cohorted room Mean age (SD) 52.4 (13.4) % male 55.7	N = 290 Mean age (SD) 52.9 (14.8) % male 48
Saint (2003)	Prospective cohort study 2 university-affiliated medical centers, United States. October 1999 to March 2000	N=31	N=108
Soon (2013)	Cross-sectional survey of cases and matched controls Teaching hospital Singapore June and August 2011	N=20 Contact isolation in a cohort cubicle for the first time because of colonization or infection with a MDRO for at least 3 days No statistically significant differences in age or gender	N=20
Spense (2011)	Retrospective evaluation of incident reports All patients admitted to acute care facility, United States January 1, 2008 to December 31, 2008.	N=45	N=256
Stelfox (2003)	Case control study Consecutive adults isolated for at least 2 days with MRSA. Canada and United States Controls patients admitted before	General N = 78 Age: 69.6 (17.1) % male: 45% CHF N = 72 Age: 66.9 (14.7)	General N = 156 Age: 65.4 (18.2) % male: 51% CHF N = 144 Age: 66.0 (14.5)

	and after. January 1, 1999, to January 1, 2000	% male: 58	% male: 54
Tarzi (2001)	Cross-sectional matched case-control study Care of the elderly rehabilitation wards, UK	N = 22 Had been in isolation for at least two weeks with MRSA Mean age (SD) 80 (8.4) % male 27.3	N = 20 Mean age (SD) 81 (9.1) % male 33.3
Tran (2017)	Propensity matched cohort study. General internal medicine services, 3 hospitals, Canada January 2010 to December 2012	MRSA Age: 69 % male 57% Respiratory Age: 71.7 % male: 53 Isolated for MRSA or respiratory illness	MRSA Age: 69 % male 58% Respiratory Age: 70.6 % male: 55
Wassenburg (2010)	Cross-sectional matched cohort study Single university hospital, Netherlands November 2006 to February 2007	N = 42 Age: 52 (19) % male: 52	N = 84 Age: 55 (16) % male: 55

Excluded papers

Reference	Reason for exclusion
Chittick et al (2016)	No comparative data
Godsell (2013)	Focussed on HCP
Jeong (2016)	MERS
MacKellaig (1986)	Qualitative
Madsden (2015)	Qualitative
Maunder (2003)	SARS
Moran (2009)	Focus on family centred care
Morgan (2011)	Focus on process measures
Rees (2000a)	No comparative data
Rees (2000a)	No comparative data
Simon (2016)	Before and after
Wilkins (1988)	No comparative data