

SUPPORTING INFORMATION

S1 File. Trends in readmission rate among mitral valve surgery survivors at 1 year, 1999-2010 (Table A). Trends in 1-year readmission by surgical subtype among 1 year MVS survivors, 1999-2010 (Table B). Trends in mean total length of stay (within 1 year of discharge) among mitral valve surgery survivors at one year, 1999-2010 (Table C).

Table A. Trends in readmission rate among mitral valve surgery survivors at 1 year, 1999-2010

Description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Full MVS Cohort	N = 11,492	N = 12,113	N = 12,166	N = 13,110	N = 13,272	N = 13,396	N = 13,411	N = 12,408	N = 11,744	N = 11,405	N = 11,377	N = 10,983
At least one re-hospitalization, %, (95% CI)	49.5 (48.6-50.4)	50.2 (49.3-51.1)	49.8 (48.9-50.7)	50.5 (49.6-51.4)	50.6 (49.7-51.4)	50.8 (49.9-51.6)	49.2 (48.3-50.0)	48.3 (47.4-49.2)	47.9 (47.0-48.8)	49.0 (48.0-49.9)	45.8 (44.9-46.7)	46.9 (45.9-47.8)
By age												
65-74	47.4 (46.1-48.7)	48.0 (46.7-49.2)	47.5 (46.3-48.8)	48.8 (47.6-50.0)	48.8 (47.6-50.1)	48.2 (47.0-49.4)	46.9 (45.7-48.1)	45.5 (44.3-46.8)	45.8 (44.5-47.1)	46.4 (45.1-47.8)	42.6 (41.3-44.0)	44.4 (43.0-45.7)
75-84	51.4 (50.1-52.8)	52.3 (50.9-53.6)	51.9 (50.6-53.2)	52.1 (50.8-53.3)	51.6 (50.4-52.9)	52.7 (51.4-53.9)	51.2 (49.9-52.4)	50.6 (49.3-52.0)	49.7 (48.3-51.0)	50.7 (49.4-52.1)	48.0 (46.6-49.3)	49.2 (47.8-50.6)
≥85	56.4 (51.5-61.2)	55.5 (50.9-60.0)	55.1 (50.5-59.7)	55.1 (50.5-59.6)	58.8 (54.7-62.9)	58.5 (54.4-62.5)	54.2 (50.2-58.2)	53.7 (49.7-57.6)	51.5 (47.5-55.6)	56.4 (52.5-60.3)	55.0 (51.2-58.7)	50.0 (41.2-53.8)
By sex												
Female	51.7 (50.5-53.0)	53.0 (51.8-54.2)	52.1 (50.9-53.4)	52.7 (51.5-53.9)	52.7 (51.5-53.8)	53.2 (52.0-54.4)	51.6 (50.4-52.8)	51.4 (50.1-52.6)	50.6 (49.3-51.9)	51.9 (50.6-53.2)	49.1 (47.8-50.4)	50.8 (49.5-52.1)
Male	46.9 (45.6-48.3)	46.8 (45.5-48.2)	47.1 (45.7-48.4)	47.9 (46.7-49.2)	48.3 (47.0-49.5)	48.2 (47.0-49.4)	46.8 (45.6-48.0)	45.1 (43.9-46.4)	45.2 (43.9-46.5)	46.1 (44.8-47.4)	42.4 (41.1-43.7)	43.0 (41.7-44.3)

Female	48.0 (46.1-49.8)	50.2 (48.4-51.9)	48.9 (47.1-50.6)	49.5 (47.8-51.2)	48.6 (46.8-50.3)	50.1 (48.4-51.9)	46.1 (44.3-47.9)	47.5 (45.6-49.4)	46.4 (44.5-48.3)	47.5 (45.5-49.4)	44.7 (42.9-46.6)	47.6 (45.7-49.5)
Male	42.8 (40.6-45.0)	44.1 (41.9-46.3)	44.5 (42.3-46.6)	43.6 (41.5-45.8)	44.2 (42.1-46.3)	45.0 (42.9-47.0)	41.9 (39.9-43.9)	40.6 (38.5-42.8)	40.0 (37.9-42.2)	41.9 (39.8-44.1)	38.2 (36.2-40.3)	37.2 (35.3-39.2)
By race												
Black	55.2 (47.5-62.8)	60.2 (53.2-66.9)	59.0 (52.1-65.8)	53.2 (46.6-59.8)	60.1 (53.3-66.6)	59.8 (53.3-65.9)	51.5 (44.8-58.2)	53.3 (46.3-60.1)	53.7 (46.8-60.6)	53.7 (47.0-60.4)	54.5 (47.5-61.4)	54.8 (48.0-61.6)
White	45.5 (44.0-46.9)	47.1 (45.6-48.5)	46.5 (45.1-48.0)	46.7 (45.3-48.1)	46.2 (44.8-47.6)	47.1 (45.7-48.6)	44.1 (42.7-45.6)	44.1 (42.6-45.6)	43.4 (41.7-44.6)	44.5 (43.0-46.0)	40.8 (39.4-42.3)	42.1 (40.7-43.5)
Other	48.1 (40.2-56.1)	56.8 (48.4-65.0)	47.9 (39.4-56.5)	51.5 (44.3-58.6)	46.1 (38.7-53.7)	53.0 (45.8-60.0)	37.8 (30.8-45.2)	46.6 (39.0-54.3)	41.9 (34.6-49.5)	46.9 (39.4-54.5)	51.1 (44.4-57.8)	47.0 (40.0-54.2)

Table B. Trends in 1-year readmission by surgical subtype among 1 year MVS survivors, 1999-2010

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Bioprosthesis	51.4%	52.9%	52.4%	53.3%	52.4%	52.1%	51.3%	51.1%	50.7%	53.1%	50.8%	50.5%
MV repair	46.5%	45.7%	47.2%	47.9%	48.7%	48.8%	46.4%	45.6%	44.7%	45.0%	40.7%	42.3%
Mechanical MVR	54.0%	54.7%	50.8%	53.0%	56.4%	56.4%	58.5%	52.0%	56.9%	57.4%	58.2%	53.6%

Table C. Trends in mean total length of stay (within 1 year of discharge) among mitral valve surgery survivors at one year, 1999-2010

Description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Full MVS Cohort	N = 11,492	N = 12,113	N = 12,166	N = 13,110	N = 13,272	N = 13,396	N = 13,411	N = 12,408	N = 11,744	N = 11,405	N = 11,377	N = 10,983
Mean days in hospital (\pm SD)	6.2 \pm 12.8	6.2 \pm 12.4	6.1 \pm 12.9	6.3 \pm 12.7	6.2 \pm 12.1	6.3 \pm 12.8	5.9 \pm 12.0	5.8 \pm 11.8	5.6 \pm 11.8	5.8 \pm 12.1	5.3 \pm 11.3	5.3 \pm 11.7
By age												
65-74	5.9 \pm 13.3	5.8 \pm 12.2	6.0 \pm 13.5	6.0 \pm 12.3	6.0 \pm 12.3	6.1 \pm 13.3	5.7 \pm 12.2	5.4 \pm 11.6	5.3 \pm 11.8	5.5 \pm 12.1	5.1 \pm 11.8	5.0 \pm 11.7
75-84	6.4 \pm 12.0	6.5 \pm 12.6	6.2 \pm 11.9	6.7 \pm 13.2	6.3 \pm 12.0	6.5 \pm 12.3	6.2 \pm 11.9	6.0 \pm 11.8	5.9 \pm 11.7	6.0 \pm 12.0	5.3 \pm 10.8	5.4 \pm 11.6
\geq 85	7.8 \pm 14.1	6.8 \pm 13.0	7.3 \pm 16.1	6.7 \pm 11.9	7.3 \pm 11.8	7.0 \pm 11.6	6.0 \pm 9.3	7.1 \pm 12.9	6.0 \pm 11.6	7.0 \pm 12.3	6.2 \pm 11.2	6.2 \pm 12.5
By sex												
Female	6.8 \pm 13.2	6.7 \pm 12.6	6.7 \pm 13.5	7.0 \pm 13.7	6.8 \pm 12.5	7.1 \pm 13.3	6.5 \pm 12.4	6.5 \pm 12.5	6.4 \pm 12.5	6.8 \pm 13.5	5.8 \pm 11.7	5.9 \pm 11.8
Male	5.5 \pm 12.2	5.5 \pm 12.2	5.5 \pm 12.1	5.6 \pm 11.4	5.6 \pm 11.7	5.6 \pm 12.1	5.3 \pm 11.4	5.0 \pm 11.0	4.8 \pm 10.8	4.8 \pm 10.3	4.8 \pm 10.9	4.6 \pm 11.5
By race												
Black	9.9 \pm 17.3	9.5 \pm 14.9	9.8 \pm 16.4	11.2 \pm 19.3	10.1 \pm 17.1	9.4 \pm 18.5	11.0 \pm 19.8	10.4 \pm 18.3	9.9 \pm 17.4	10.2 \pm 18.7	10.0 \pm 16.8	9.7 \pm 18.0
White	6.0 \pm 12.4	6.0 \pm 12.2	5.9 \pm 12.6	6.0 \pm 11.8	6.0 \pm 11.8	6.1 \pm 12.2	5.6 \pm 11.2	5.5 \pm 11.3	5.4 \pm 11.4	5.5 \pm 11.4	4.9 \pm 10.6	5.0 \pm 11.1
Other	7.7 \pm 16.0	7.1 \pm 15.6	7.7 \pm 16.5)	9.2 \pm 21.0	6.7 \pm 12.3	8.1 \pm 17.6	7.6 \pm 15.3	6.3 \pm 11.8	5.4 \pm 10.9	7.42 \pm 15.0	7.9 \pm 17.0	6.0 \pm 13.7

Isolated MVS Cohort	N = 4946	N = 5204	N = 5154	N = 5390	N = 5377	N = 5367	N = 5287	N = 4857	N = 4790	N = 4684	N = 5011	N = 5109
Mean days in hospital (\pm SD)	5.3 \pm 11.5	5.7 \pm 12.1	5.6 \pm 11.7	5.6 \pm 11.5	5.5 \pm 11.1	5.5 \pm 11.3	4.8 \pm 10.9	4.8 \pm 10.7	4.8 \pm 10.8	4.9 \pm 10.5	4.2 \pm 9.3	4.4 \pm 9.5
By age												
65-74	5.1 \pm 12.0	5.4 \pm 12.3	5.3 \pm 12.2	5.2 \pm 10.7	5.1 \pm 10.7	5.2 \pm 11.5	4.4 \pm 10.7	4.2 \pm 10.0	4.5 \pm 10.9	4.3 \pm 10.1	3.9 \pm 9.6	4.0 \pm 9.5
75-84	5.4 \pm 10.7	6.0 \pm 11.7	5.7 \pm 10.4	6.0 \pm 12.4	5.7 \pm 11.3	5.9 \pm 11.1	5.2 \pm 11.4	5.3 \pm 10.7	5.0 \pm 10.4	5.2 \pm 10.5	4.5 \pm 8.7	4.8 \pm 9.7
\geq 85	7.5 \pm 11.6	6.3 \pm 13.6	8.4 \pm 17.4	6.9 \pm 12.5	7.7 \pm 12.9	5.7 \pm 11.1	5.9 \pm 9.5	7.9 \pm 16.8	5.9 \pm 14.7	7.2 \pm 12.9	5.7 \pm 9.5	5.2 \pm 8.6
By sex												
Female	5.8 \pm 11.9	6.0 \pm 11.6	6.0 \pm 12.6	6.1 \pm 11.6	6.0 \pm 11.4	6.0 \pm 11.3	5.1 \pm 11.0	5.6 \pm 11.6	5.4 \pm 11.4	5.6 \pm 11.3	4.6 \pm 9.5	5.2 \pm 10.4
Male	4.6 \pm 10.8	5.1 \pm 12.8	4.9 \pm 10.2	4.9 \pm 11.4	4.8 \pm 10.6	4.9 \pm 11.2	4.4 \pm 10.9	3.8 \pm 9.1	3.9 \pm 10.1	4.0 \pm 9.4	3.7 \pm 9.0	3.4 \pm 8.3
By race												
Black	9.6 \pm 16.9	10.1 \pm 17.3	8.8 \pm 16.1	10.3 \pm 21.2	9.8 \pm 15.9	8.2 \pm 14.3	8.9 \pm 16.8	9.0 \pm 17.6	9.0 \pm 15.4	9.0 \pm 17.3	9.2 \pm 15.9	8.0 \pm 16.5
White	5.2 \pm 11.3	5.4 \pm 11.7	5.4 \pm 11.5	5.3 \pm 10.6	5.3 \pm 10.8	5.3 \pm 11.1	4.6 \pm 10.4	4.6 \pm 10.2	4.6 \pm 10.6	4.6 \pm 9.6	3.9 \pm 8.6	4.1 \pm 8.8
Other	5.3 \pm 10.6	7.7 \pm 12.8	5.5 \pm 10.4	7.9 \pm 16.4	5.0 \pm 9.4	6.3 \pm 12.7	4.9 \pm 13.5	5.2 \pm 10.9	4.5 \pm 9.1	7.3 \pm 15.9	6.6 \pm 11.8	6.5 \pm 12.9