

## ABDOMINAL AORTIC ANEURYSM (AAA) REPAIR

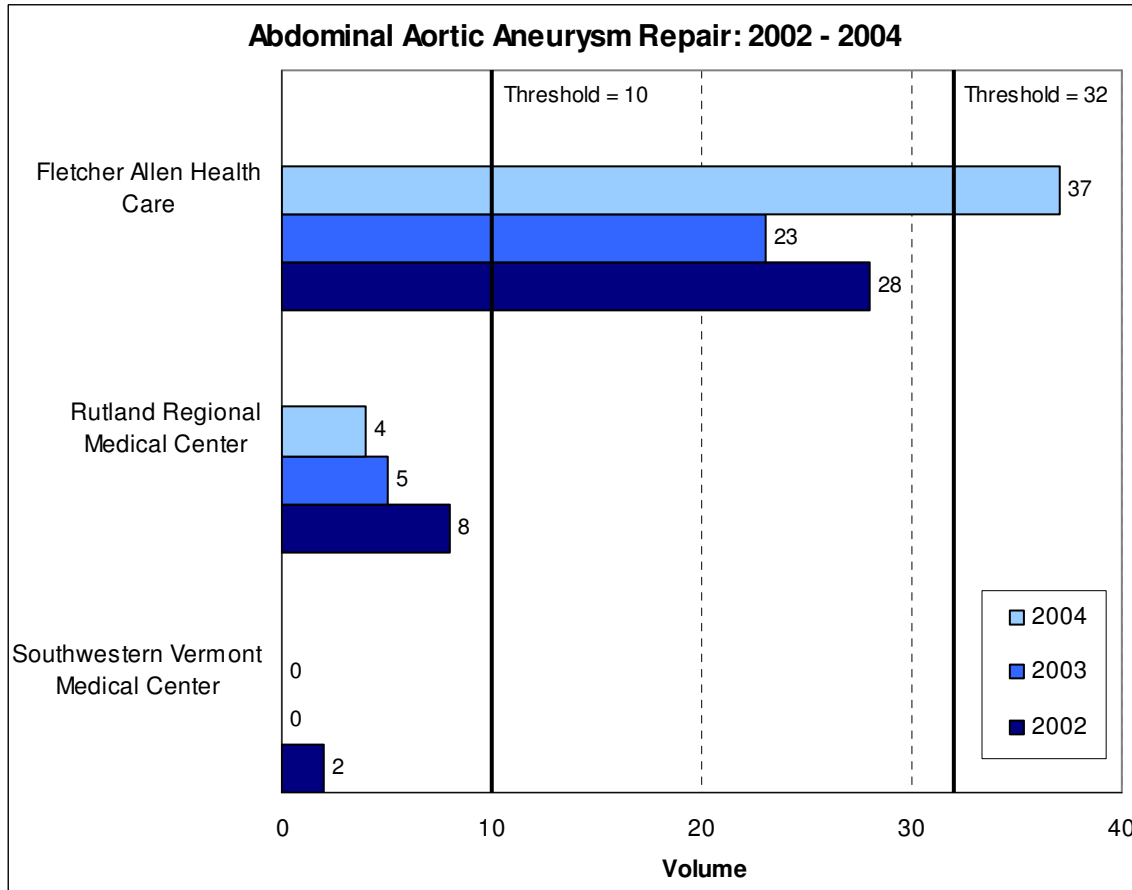
An aneurysm is a defect or swelling in the wall of a weak or damaged artery. The aorta is the main artery carrying blood from the heart to the rest of the body. Aneurysms that occur in the part of the aorta within the abdomen are called abdominal aortic aneurysms.

Surgery called abdominal aortic aneurysm repair can repair the artery before it ruptures. In some cases, once the aneurysm ruptures, the patient may be saved by emergency surgery.

### Abdominal Aortic Aneurysm Repair: Volume

Volume is measured as the number of patients who underwent AAA Repair. Scientific research indicates that higher volumes (that is, doing more of the procedures) are connected with better outcomes, and medical experts have recommended thresholds establishing the minimum number of procedures a facility should perform in order to assure safety and better outcomes. For AAA Repair, the lowest minimum threshold recommended in scientific literature is 10 procedures per year, and the highest minimum threshold recommended by any scientific study is 32 procedures per year. (See Technical Guide for more information)

- Hospitals not shown had no cases in the reporting years.
- Hospital comments about this measure are listed below the mortality table.



## Abdominal Aortic Aneurysm Repair: Mortality

Mortality refers to the number of patients who underwent the procedure at a hospital and died at the same hospital (excludes hospital to hospital transfers).

- Lower rates may represent better quality.
- These measures lack reliability and are influenced by random variation when the number of procedures is small. Small numbers of reported cases are often not sufficient for establishing a pattern of care. For this reason, mortality rates are not calculated for hospitals with fewer than 30 cases in a reporting year. Even when there are more than 30 cases, caution should be used when interpreting rates.
- Hospitals not shown had no cases in any of the reporting years.
- Hospital comments about this measure are listed below the table.

Hospitals performing procedure in 2002, 2003, and/or 2004	Number of Procedures			Number of Deaths			Mortality Rate					
	2002	2003	2004	2002	2003	2004	Observed Rate			Risk-Adjusted Rate		
							2002	2003	2004	2002	2003	2004
Fletcher Allen Health Care	28	23	37	3	4	3	*	*	8%	*	*	8%
Rutland Regional Medical Center	6	5	3	1	1	1	*	*	*	*	*	*
Southwestern Vermont Medical Center	2			0			*			*		
Vermont Total	36	28	40	4	5	4	11%	*	10%	14%	*	9%
National Total										11%	na	na

\* Rates for hospitals with fewer than 30 procedures are not presented because of concerns that small numbers result in statistically unreliable rates.

na - National mortality rates are not yet available for 2003 and 2004

<b>Definitions</b>	
Number of Procedures	The number of patients who underwent this procedure at the hospital (does not include transfers).
Number of Deaths	The number of patients who underwent this procedure at a hospital and died at the same hospital.
Mortality Rate	The percentage of patients who underwent this procedure who died at the hospital. Two ways of measuring this rate are Observed Rate and Risk-Adjusted Rate.
Observed Rate	The Number of Deaths divided by the Number of Procedures. This does not take into account age, gender, or the complexity of particular cases.
Risk-Adjusted Rate	Mortality rate adjusted for age, gender, and complexity. This rate allows for better comparisons between hospitals. It is important to note, however, that it is difficult to draw firm conclusions from rates based on a small number of procedures.

The following hospitals provided additional comments about AAA repair:

**Fletcher Allen Health Care:** Fletcher Allen Health Care, as Vermont's academic medical center, performs a wide range of vascular surgical procedures, including the Abdominal Aortic Aneurysm (AAA) procedure. All Fletcher Allen vascular surgeons are fully certified by the American Board of Surgery with special qualifications in Vascular Surgery.

Fletcher Allen's extensive vascular surgery activity strengthens surgeon expertise in this critical subspecialty and contributes to the mortality outcomes shown. The vascular care team at

Fletcher Allen actively reviews surgical outcomes as part of its academic training program and rigorously strives to continuously improve care.

**Rutland Regional Medical Center:** The repair of abdominal aortic aneurysms (AAA) is either elective (the aneurysm has not ruptured) or emergent (the aneurysm has ruptured). Patients with ruptured aortic aneurysms are critically ill and must have their aneurysm repaired immediately. Typically, they are too critical to transfer to another hospital. The mortality rate for repair of ruptured AAAs is 40%-55% (Agency for Healthcare Research and Quality). Most of the hospitals with very few AAAs, such as RRMCC, are performing emergency repairs on patients who present to their Emergency Departments. As a result, their mortality rates tend to be higher than hospitals which perform a large number of lower risk elective repairs.

**Southwestern Vermont Medical Center:** Following The Leap Frog Group and other national recommendations regarding the relationship between volumes and outcomes of certain high risk procedures, Southwestern VT Medical Center decided in 2002 to no longer perform Abdominal Aortic Aneurysm Repairs because we did not have the volume to support best clinical outcomes. Hence, SVMC does not perform this procedure at any time under any circumstances in the interest of best patient care.