

Excessive Angiography Screening for Intracranial Aneurysm in NL

Choosing Wisely Canada Recommendation

Don't do imaging for uncomplicated headache unless red flags are present.

Practice Points

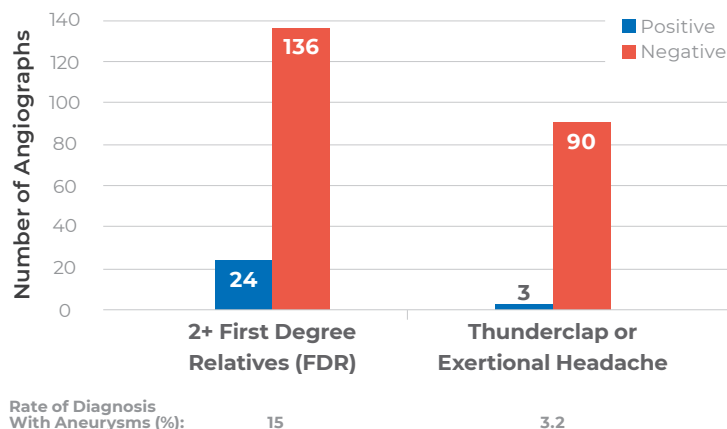
1. The prevalence of intracranial aneurysm is estimated to be 2–6%. They are typically asymptomatic but can rupture causing subarachnoid hemorrhage. Risk of rupture of detected aneurysm is approximately 1%.
2. Screening for aneurysms is indicated in families with two or more members with aneurysms.

Method (PIs: V. Linehan, C. Woodworth, P. Bartlett)

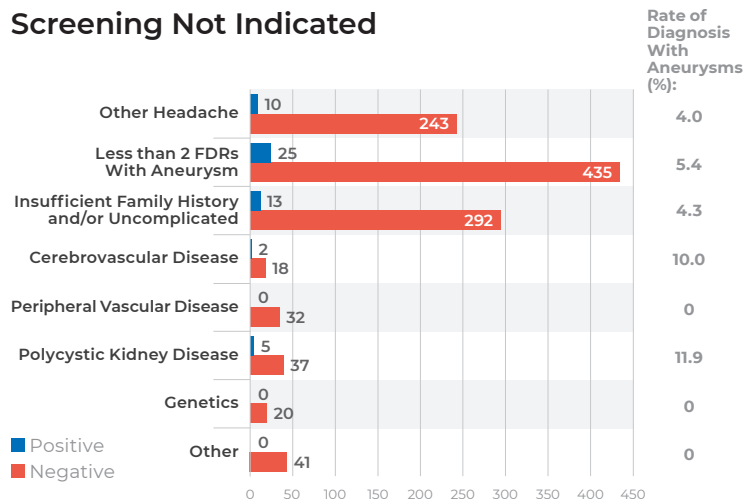
1. Audit of all 4,092 CT/MR head angiography studies performed in NL between March 2013 to December 2017 to screen for aneurysms.

Results

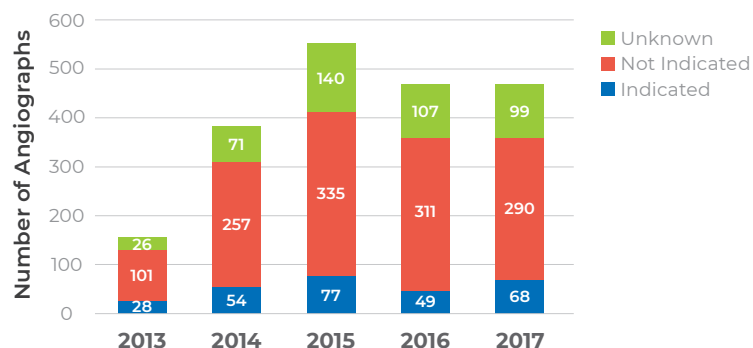
Screening Indicated



Screening Not Indicated



Volume of Screening Angiography by Indication and Time



- In 2017, 437 CT and 20 angiographies were performed.

	Eastern Health	Central Health	Western Health	Lab/Grenfell
N Performed	1,308	220	253	129
N with Aneurysms	76	13	14	4
Percent with Aneurysms	5.5	5.6	5.2	3.1

Conclusions

1. From 2013 to 2017 the number of screening angiographies for aneurysms has increased by 294%. 82% were not indicated.
2. A family history of 2+ first degree relatives with aneurysms is a strong indication for screening angiography.
3. In patients in whom angiography was not indicated the rate of aneurysm was 4.7%, similar to the prevalence in the general population.