Unruptured Intracranial Aneurysm: (AHA Guidelines)

Risk factors modification:

1. Given that smoking appears to increase the risk of UIA formation, patients with UIA should be counseled regarding the importance of smoking cessation
2. Patients with UIA should monitor blood pressure and undergo treatment for hypertension.

Management:

3. Patients with an aSAH should undergo careful assessment for a coexistent UIA.
4. DSA is reasonable as the most sensitive imaging for follow-up of treated aneurysms.
5. CTA and MRA are useful for detection and follow-up of UIA.
6. It is reasonable to perform MRA as an alternative for follow-up for treated aneurysms, with DSA used as necessary when deciding on therapy.
7. Coiled aneurysms, especially those with wider neck or dome diameters or those that have residual filling, should have follow-up evaluation. The timing and duration of follow-up is uncertain, and additional investigation is necessary.
8. Patients with aneurysms with documented enlargement during follow-up should be offered treatment in the absence of prohibitive comorbidities
9. Treatment of UIAs in patients with a family history of IA is reasonable even in aneurysms at smaller sizes than spontaneously occurring IAs

Endovascular treatment:

- Use of coated coils is not beneficial compared with bare-metal coil
- Endovascular treatment of UIAs is recommended to be performed at high-volume centers.

Clipping versus coiling:

- Endovascular coiling is associated with a reduction in procedural morbidity and mortality over surgical clipping in selected cases but has an overall higher risk of recurrence

Aneurysm Follow-Up (Patients Treated Without Surgery or Endovascular Coiling):

- Radiographic follow-up with MRA or CTA at regular intervals is indicated.
- First follow-up study at 6 to 12 months after initial discovery, followed by subsequent yearly or every other year follow-up, may be reasonable.
- It may be reasonable to consider TOF MRA rather than CTA for repeated long-term follow-up

Screening:

- Screening for aneurysms by MRA or CTA is indicated in:
    - Patients with ≥2 family members with IA or SAH
    - Patients with a history of autosomal dominant polycystic kidney disease,
    - Patients with coarctation of the aorta
    - Patients with microcephalic osteodysplastic primordial dwarfism