Modified Fisher Grading Scale for Subarachnoid Hemorrhage

- Infection Associated with Global Cerebral Edema and Delayed Cerebral Ischemia in Patients with Aneurysmal Subarachnoid Hemorrhage
- Lack of association between chronological age and fisher group and poor outcomes in older patients with severe-grade aneurysmal subarachnoid hemorrhage: a nationwide registry study in Japan
- Pentraxin 3 as a Prognostic Biomarker in Aneurysmal Subarachnoid Hemorrhage
- Predicting early functional outcomes in aneurysmal subarachnoid hemorrhage in endovascular coiling and surgical clipping
- Continuous Intra-arterial Infusion of Verapamil for Severe Vasospasm Treatment After Subarachnoid Hemorrhage: A Case Report
- Grading Scores for Identifying Patients at Risk of Delayed Cerebral Ischemia and Neurological Outcome in Spontaneous Subarachnoid Hemorrhage: A Comparison of Receiver Operator Curve Analysis
- Spinal Drainage and Combined Pharmacotherapy as Potential Strategies to Improve Outcomes for Patients with Poor-Grade Subarachnoid Hemorrhage Treated with Clipping or Coiling but Not Receiving Nimodipine
- Aneurysmal Subarachnoid Hemorrhage Risk Assessment Model Identifies Patients for Safe Early Discharge at Day 15-The SAFE-SaH Score

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see also OLD Fisher Scale

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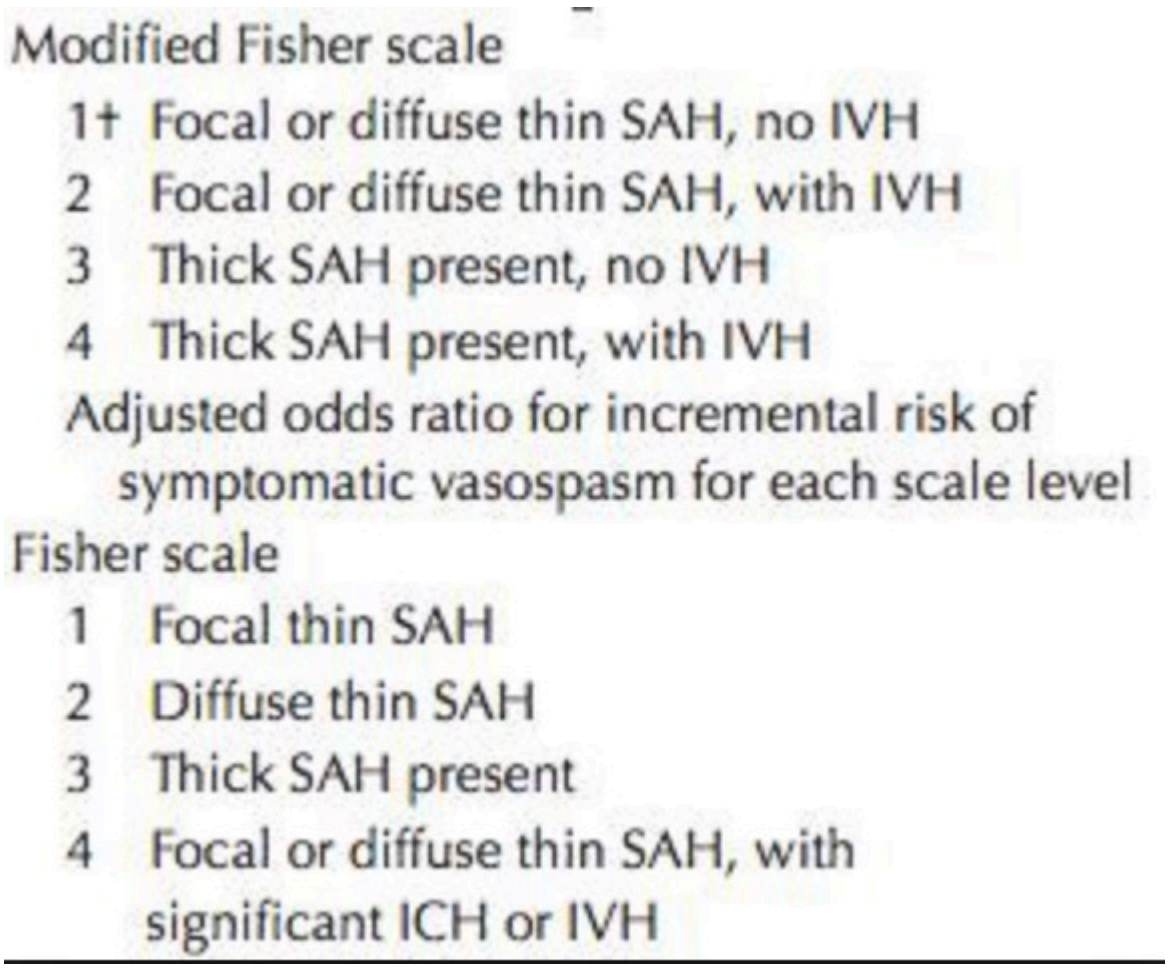
https://www.mdcalc.com/calc/3837/modified-fisher-grading-scale-subarachnoid-hemorrhage-sah



Modified Fisher scale

1+	Focal or diffuse thin SAH, no IVH
2	Focal or diffuse thin SAH, with IVH
3	Thick SAH present, no IVH
4	Thick SAH present, with IVH

Adjusted odds ratio for incremental risk of symptomatic vasospasm for each scale level

Fisher scale

1	Focal thin SAH
2	Diffuse thin SAH
3	Thick SAH present
4	Focal or diffuse thin SAH, with significant ICH or IVH

Modified Fisher Grading Scale 4

Extensive subarachnoid hemorrhage distributed throughout perimesencephalic cisterns (predominantly in the chiasmatic cistern), prepontine cistern, both Sylvian fissures, and interhemispheric fissure, with a component of bifrontal parasagittal intraparenchymal hematoma with mild adjacent vasogenic edema. The hemorrhage also extends into the ventricular system (third ventricle and lateral ventricles). Findings consistent with modified Fisher grade IV subarachnoid hemorrhage.

This extension is compatible with an aneurysmal subarachnoid hemorrhage pattern.

Erasure of cerebral sulci, predominantly frontotemporal, in relation to diffuse cerebral edema.

Increased ventricular size for the patient's age.

For prediction of Symptomatic vasospasm

Scoring system

Abbreviations SAH: subarachnoidal hemorrhage IVH: intraventricular hemorrhage

Diffuse thick SAH

IVH: 4 points

No IVH: 3 points

Localized thick SAH

IVH: 4 points

No IVH: 3 points

Diffuse thin SAH

IVH: 2 points

No IVH: 1 points

Localized thin SAH

IVH: 2 points

No IVH: 1 points

No SAH

IVH: 2 points

No IVH: 0 points

Prediction of symptomatic vasospasm

1 point: 24%

2 points: 33%

3 points: 33%

4 points: 40%

[1)].

Additional intracerebral hemorrhage (ICH) was associated with an increased risk of delayed cerebral ischemia (DCI). Furthermore, adding the presence or absence of ICH to the modified Fisher Scale (mFS) improved the identification of patients at the highest risk for the development of DCI. Thus, a simple adjustment of the mFS might help to identify patients at high risk for DCI [2)].

The mFS and the modified Graeb score (mGS) have similar prognostic utility. Accounting for IVH

volume improved prediction of Delayed cerebral ischemia (DCI) by the mFS [3].

Hijdra sum score

see also Hijdra sum score

Claassen CT scale

see Claassen CT scale.

1)
Frontera JA, Claassen J, Schmidt JM, Wartenberg KE, Temes R, Connolly ES, et al. Prediction of symptomatic vasospasm after subarachnoid hemorrhage: the modified fisher scale. Neurosurgery. 2006 Jul;59(1):21-7.
2)
Platz J, Güresir E, Wagner M, Seifert V, Konczalla J. Increased risk of delayed cerebral ischemia in subarachnoid hemorrhage patients with additional intracerebral hematoma. J Neurosurg. 2016 Mar 11:1-7. [Epub ahead of print] PubMed PMID: 26967776.
3)
Eagles ME, Jaja BNR, Macdonald RL. Incorporating a Modified Graeb Score to the Modified Fisher Scale for Improved Risk Prediction of Delayed Cerebral Ischemia Following Aneurysmal Subarachnoid Hemorrhage. Neurosurgery. 2017 Apr 17. doi: 10.1093/neuros/nyx165. [Epub ahead of print] PubMed PMID: 28419304.