enrolling at least 20 patients, and studies performed for mid-/lower-thoracic and lumbar vertebral fractures (T5 through L5).Two authors (JS and NS) will independently identify the articles by inclusion and exclusion criteria, and study quality assessment scores will be assigned. Any disagreements will be resolved by consensus with a third investigator (RDL).We will extract type of fracture according to AO classification and/or TLICS classification, Oswestry Disability Index (ODI) breakdown at important clinical time points (e.g. admission, discharge, 1 month, 3 months, 6 months, 1 year, 5 years, etc.), average cost of re-operation, average cost of surgery (including admission), average cost of surgery, preop and postop, Visual Analog Scale (VAS) pain reduction at important clinical time points, average employment status of people, average expected lifespan for patients with procedure, average expected mortality for patients who have surgery versus those who do not, rate of need for reoperation, rate of need for subsequent adjacent fracture operation and relative costs of the prior two, characteristics of the study population (age range, demographics, socioeconomic, or clinical characteristics). The prespecified primary endpoint is the cost-effectiveness analysis using QALYs of different treatment based on different vertebral fractures according to AO classification and/or TLICS classification.Additional endpoints will be comparing Pain and Quality of life scores using odds ratios, risk difference, and/or number needed to treat.

Discussion The purpose of this systematic review is to update the existing body of literature using recent highest quality data to assess the cost-effectiveness of different treatments for different vertebral fractures to guide treatment choice based on the Thoracolumbar spinal fracture classification systems.

Disclosures J. Scaggiante: None. **N. Siddiqui:** None. **J. Watchmaker:** None. **D. Goldman:** None. **R. De Leacy:** None.

E-002 INTRACRANIAL ANEURYSM CLINICAL TRIALS: TRENDS OF DEVELOPING TREATMENTS IN THE LAST TWO DECADES

J Klein, N Shlobin, K Nandoliya, B Jahromi, M Potts. *Neurosurgery, Northwestern University, Feinberg School of Medicine, Chicago, IL*

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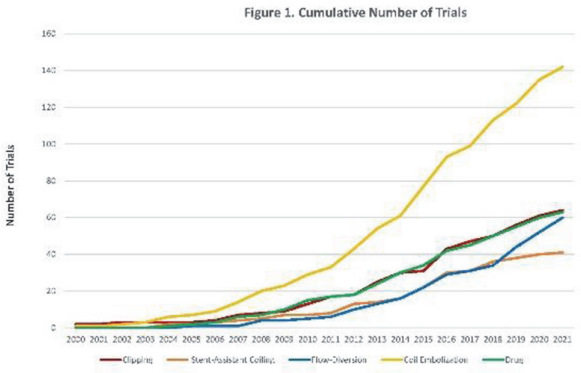
Introduction Innovative technologies continue to improve interventional and surgical treatment of intracranial aneurysms, improving the safety and efficacy of interventions. Understanding clinical trial trends related to the treatment of intracranial aneurysms provides insight into future practice developments.

Materials and Methods Using the general search term 'aneurysm' and other relevant filters, all clinical trials related to treatment of intracranial aneurysm registered in Clinicaltrials.gov from the past 20 years (January 1, 2001 to September 30th, 2021) were categorized and reviewed.

Results We identified 1623 trials relating to cerebral aneurysms, of which 17% focused on cerebral aneurysm treatments. These studies occurred across 30 countries - most frequently in the United States (35%), followed by China (16%), France (12%), and Germany (8%). More than half (57%) were multi-centered. Twenty-four percent involved surgical clipping, 52% coil embolization, 23% flow-diversion, and 23% drug therapy. Recent aneurysmal hemorrhage was a selection criterion in 20%. The number of trials increased over the two included decades from 52 in 2000–2010 to 221 in 2011–2021. The percentage of endovascular device studies increased across decades (44% versus 57%), with a notable increase in studies involving flow diversion (12% versus 25%, p=0.03). Conversely, the percentage of surgical clipping and drug trials both decreased (27% to 23% and 29% to 22%, respectively). A total of 80 linked publications were identified for the included trials, of which 51 were concluded as having a positive result in line with the study hypothesis.



Abstract E-002 Figure 1 Cumulative number of trials

Abstract E-002 Table 1 Endovascular treatment devices with multiple trials

Device Name	Number of Trials	Mechanism	Targeted Aneurysm
Pipeline Embolization Device (PED)	15	Flow diversion	large or giant (≥10 mm) and wide-necked (≥4 mm)
Hydrogel-coated coil	10	Coil material improvement	small- and medium-sized
Low-profile Visualized Intraluminal Support (LVIS/LVIS Jr.)	9	Stent assisted coiling	wide-necked
Woven EndoBridge (WEB)	9	Flow diversion	wide-necked at bifurcation
Enterprise stent	6	Stent assisted coiling	wide-necked
Flow Re-Direction Endoluminal Device (FRED/Fred Jr./FRED X)	6	Flow disruption/diversion	large or giant, fusiform, wide-necked
Neuroform stent	5	Stent assisted coiling	wide-necked
PulseRider Neck Reconstruction Device	4	Neck bridging, stent-assisted coiling	wide neck at bifurcation
p48/p64 MW HPC Flow Modulation Device	4	Flow diversion	~not indicated~

Conclusions The field of cerebral aneurysm treatment has seen a marked increase in clinical trials over the past two decades. This trend is largely attributable to the study of endovascular devices, especially those involving flow diversion.

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