Synthesis

Once your Nest is complete, the data will be viewable and you can export the data for analysis. NK's Synthesis feature allows you to view the data through **Qualitative Synthesis** and **Quantitative Synthesis** depending on the end goal.

Basics of Synthesis

In short, **Synthesis contains the outputs of the living review**, divided into several pages, including Qualitative Synthesis (the output from Tagging), Quantitative Synthesis (the output of Meta-analytical Extraction), and a PRISMA diagram (the record of Screening), as well as configurable/customizable Dashboards. See the video here or the text below for details!

Navigating Synthesis

Synthesis Home lists the Contributors and Description, and then enables you to access the nest outputs (Qualitative Synthesis, Quantitative Synthesis, and Manuscript, in the left-hand menu column). Methodological details and outputs (specifically, PRISMA and Risk of Bias outputs) can also be here.

	Synthesis: Basilar Artery - thrombectomy vs. thrombolysis	?

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Abstract

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Last Edited: 2022-09-26

Background

Endovascular thrombectomy (EVT) is an effective treatment for acute ischemic stroke attributable to the anterior circulation large-vessel occlusion. Randomized trials of patients with posterior circulation large-vessel occlusion (PC-LVO) have failed to show a benefit of EVT over medical therapy (MEDT). We performed a systematic review and meta-analysis to understand better whether EVT is beneficial for PC-LVO.

Methods

Using the Nested Knowledge AutoLit living review platform, we identified randomized control trials and prospective studies that reported functional outcomes in patients with PC-LVO treated with EVT versus MEDT. The primary outcome variable was 90-day modified Rankin scale score of 0 to 3, and secondary outcome variables included 90-day modified Rankin scale score of 0 to 2, 90-day mortality, and rate of symptomatic intracranial hemorrhage. A separate random effects model was fit for each outcome measure to calculate pooled odds ratios.

Results

Three studies with 1248 patients, 860 in the EVT arm and 388 in the MEDT arm, were included in the meta-analysis. The favorable outcome rate (modified Rankin scale score of 0–3) in patients undergoing EVT was 39.9% (95% CI, 30.6%–50.1%) versus 24.5% in patients undergoing MEDT (95% CI, 9.6%–49.8%). Patients undergoing EVT had higher modified Rankin scale score of 0 to 2 rates (31.8% [95% CI, 25.7%–38.5%] versus 19.7% [95% CI, 7.4%–42.7%]) and lower mortality (42.1% [95% CI, 35.9%–48.6%] versus 52.8% [95% CI, 33.3%–71.5%]) compared with patients undergoing MEDT, but neither result was statistically significant. Patients undergoing EVT were more likely to develop symptomatic intracranial hemorrhage (odds ratio, 10.36; 95% CI, 3.92–27.40).

Conclusions

EVT treatment of PC-LVO trended toward superior functional outcomes and reduced mortality compared with MEDT despite a trend toward increased symptomatic intracranial hemorrhage in patients undergoing EVT. Existing randomized and prospective studies are insufficiently powered to demonstrate a benefit of EVT over MEDT in patients with PC-LVO.

Study information:

PMID: N/A

DOI: 10.1161/svin.121.000147

Key Insights:

⚓ **Evidence quality difference? Registry vs. RCTs does not impact findings**   [View in Context]

Two included studies were RCTs, while the third (the BASILAR study) reported a prospective registry. While mortality was much higher in this registry for...
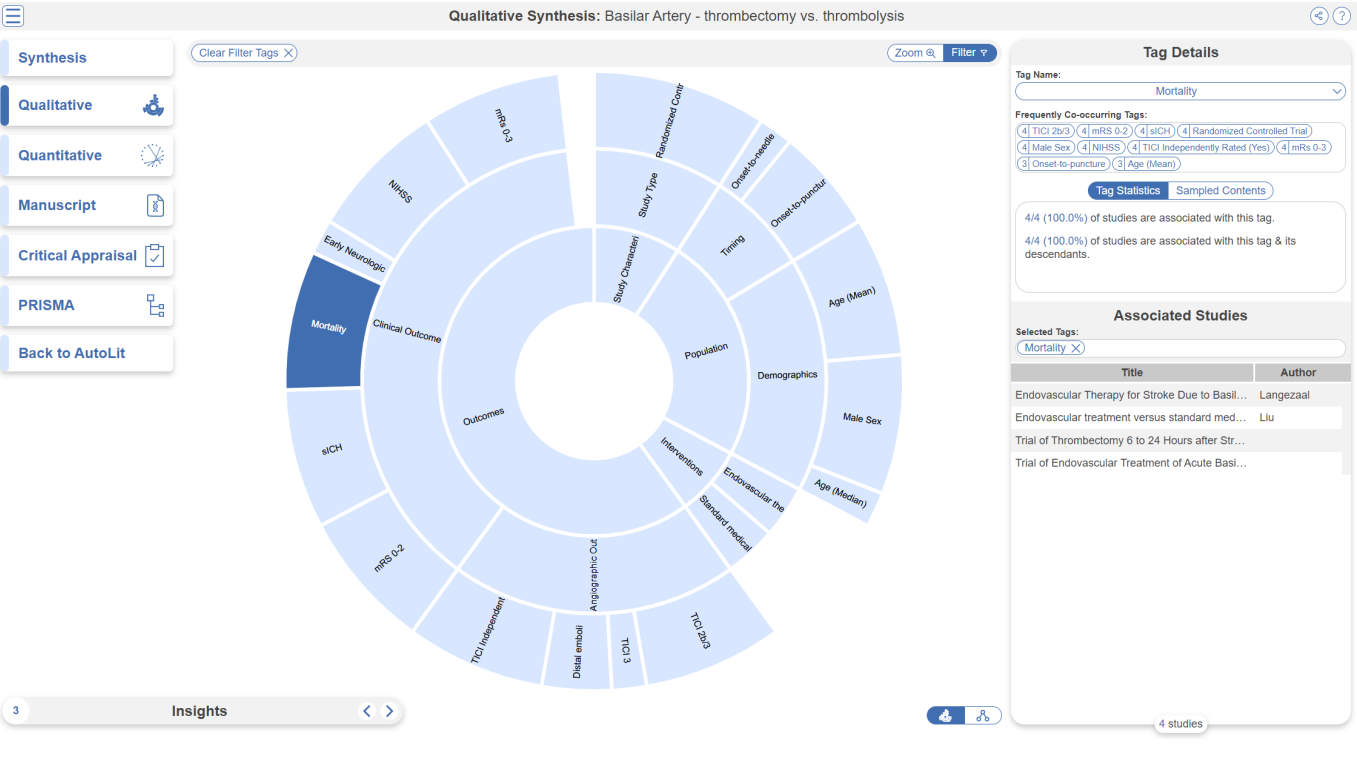
To navigate back to the AutoLit for that specific nest, click the "Back to AutoLit", the last mitem at the bottom of the left-hand menu. Unlike the blue AutoLit button in the top menu (next to your name), which takes you back to a listing of all of your nests, the "Back to AutoLit" button will take you to the AutoLit for the specific nest you are viewing. This button is only visible to users with AutoLit access to that specific nest.

Qualitative Synthesis

In Qualitative Synthesis, you can examine the tags associated with studies in a nest in an interactive, filterable sunburst diagram or dendrogram with direct access to each study's abstract, data, and tags.

Quantitative Synthesis

In Quantitative Synthesis, you can view data outputs from Meta-Analytical Extraction.

Insights

On Qualitative Synthesis (and, coming soon, on Quantitative Synthesis), specific Insights can be identified with a title, text, and pre-configured diagram!

Manuscript

Manuscript presents written background, methods, findings, and discussion related to the nest.

Dashboard

Dashboard presents your findings via custom data cards: text, tables, images, studies, and PRISMA.

Methods-Related Visuals

Nested Knowledge also generates methods-related visuals automatically:

PRISMA Chart

Specifically, a PRISMA Chart is generated to give a history of all Search and Screening activities.

Critical Appraisal Visuals

An interactive Critical Appraisal Visual page contains your Domain Distribution and Stoplight diagrams.

Share, Embed or Download

Within all parts of Synthesis (Dashboard, Manuscript, QLS, QNS, Critical Appraisal and PRISMA) you may share and embed the visuals. To do this, navigate to your Synthesis output of choice, and click the share button in the top right. A modal will open offering the link to share the page, a unique QR code, and the HTML code to use for embedding the output on your site of choice, provided your Synthesis is public (see Settings).
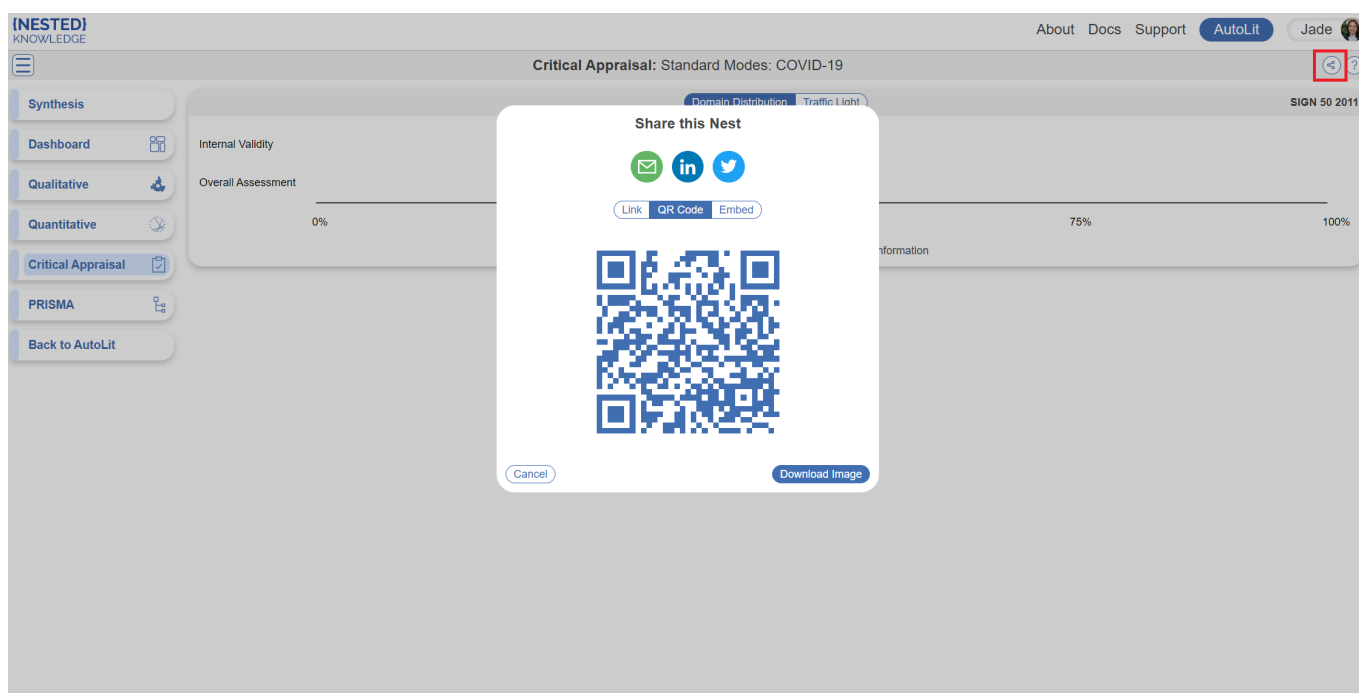
In QLS, you have the additional ability to download a spreadsheet of filtered studies. This is often helpful for external viewers to alternatively visualize the data but don't worry, any admin in the nest can still access all data (not just qualitative) and download them as spreadsheets in Study Inspector –> Download.

Filtering Synthesis

In QLS, QNS, Critical Appraisal and PRISMA outputs, filters can be applied via the Settings button in the top right. These filters work similarly to Study Inspector, allowing you to filter to specific sets of studies to be shown. Learn more about filters on Synthesis.

Synthesis AI Disclosure

The AI Disclosure Policy describes how AI is used in Synthesis and elsewhere in Nested Knowledge. We are committed to transparency on the use of AI in generating research outputs.

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Last update: **2024/03/06 03:07**