

Dual MA Extraction

Dual MA Extraction is a quality-controlled extraction process, where two users independently extract meta-analytical data from each article, and then all data are adjudicated by an Administrator.

The Admin adjudicates any disagreement between Reviewer A and Reviewer B and sets the final determination for each study. For example, if Reviewer A extracts the mean age as 70 but Reviewer B extracts it as 71, the Adjudicator will then need to choose between those values and identify the correct one.

Only those with Admin privileges can serve as Adjudicators, but any user can serve as a Reviewer.

This feature is useful to ensure that your team curates the most accurate and high quality data possible. Dual MA extraction can help with this since it has been shown that dual extraction results in fewer errors than single extraction. ([source](#))

Configure Dual MA Extraction

To configure dual MA extraction, go to the [Settings page](#) under Nest Home and then scroll to the Extraction section. Then, select dual extraction to turn this feature on.

Meta-Analytical Extraction

Checking this box will make the Meta-Analytical Extraction module available in AutoLit, allowing you to extract descriptive statistics for Meta-Analysis and Quantitative Synthesis

Choose whether to extract meta-analytical data:

☒ Meta-Analytical Data Extraction

Single vs. Dual MA Extraction

In Standard Meta-Analytical Extraction, one user extracts each study and that data is considered final. Another user may review or modify final data, but the data is not subject to systematic independent confirmation.

In Dual Meta-Analytical Extraction, two users independently extract each study and all data are reviewed by an administrator. The administrator adjudicates disagreements between the original reviewers and generates the final data set.

Choose number of reviewers:

☒ Single

☐ Dual



Warning: Toggling back from Dual MA Extraction to Standard MA Extraction will **ONLY** save final adjudications, and **all data associated with non-final individual users' extractions will be lost!**

Dual MA Extraction Steps

1. Two users must independently extract the meta-analytical data.

Once Dual MA Extraction is configured (see above), the software will automatically queue individual studies to users until at least two MA Extractions are Marked Complete.

If you need help with the MA Extraction process, check out [this page](#). Each study will appear in the Adjudicate Extraction queue only after two independent MA extractions are Marked Complete.



Unlike Standard (single) Extraction, when a user is finished extracting in Dual mode, the data are NOT displayed on Synthesis. In Dual MA Extraction, data are queued for Adjudication, and displayed on Synthesis only after Adjudication on the study in question is Marked Complete.

2. Adjudicate the meta-analytical data

Go to the Adjudicate MA Extraction page to review the data extracted by the two independent, underlying users. At first the page will appear the same as the Dual MA Extraction page. To view the two independent decisions, click the three column icon at the bottom to expand the panel. You can also use the arrows to manually expand/shrink the panel size.

The screenshot displays the Dual MA Extraction interface. On the left, the abstract of a study titled "Efficacy and Safety of Favipiravir in Moderate COVID-19 Pneumonia Patients without Oxygen Therapy: A Randomized, Phase III Clinical Trial" is visible. The abstract mentions that favipiravir is an orally administrable antiviral drug whose mechanism of action is to selectively inhibit RNA-dependent RNA polymerase. A preliminary trial in COVID-19 patients reported significant improvements across a multitude of clinical parameters, but these findings have not been confirmed in an adequate well-controlled trial. The study was a randomized, single-blind, placebo-controlled Phase III trial assessing the efficacy and safety of favipiravir in patients with COVID-19.

On the right, the "Study Design" and "Extracted Data" panels are shown. The "Study Design" panel includes a table for "Arms" with columns for "Intervention", "Arm Size", and "Final". The "Extracted Data" panel includes a table for "Age Mean" with columns for "Timepoint", "Time", "Units", and "Final". The "Extracted Data" panel also includes a table for "RT-PCR Negativity" and a table for "Clinical Improvement". The "Extracted Data" panel is expanded, showing the "Age Mean" table with data for "Control/Standard of Care" and "Favipiravir" arms. The "RT-PCR Negativity" table shows data for "Control/Standard of Care" and "Favipiravir" arms. The "Clinical Improvement" table shows data for "Control/Standard of Care" and "Favipiravir" arms. The "Mortality" table shows data for "Control/Standard of Care" and "Favipiravir" arms. The "Extracted Data" panel is expanded, showing the "Age Mean" table with data for "Control/Standard of Care" and "Favipiravir" arms. The "RT-PCR Negativity" table shows data for "Control/Standard of Care" and "Favipiravir" arms. The "Clinical Improvement" table shows data for "Control/Standard of Care" and "Favipiravir" arms. The "Mortality" table shows data for "Control/Standard of Care" and "Favipiravir" arms.

| Timepoint | Time | Units | Final |
|--------------------------|--------------|-------|-------|
| Baseline | 2 | Days | |
| Arm | Mean (Years) | SD | N |
| Control/Standard of Care | 48.7 | 14.1 | 49 |
| Favipiravir | 43.8 | 12.5 | 107 |

| Timepoint | Time | Units | Final |
|--------------------------|--------|-------|-------|
| Outcome | 21 | Days | |
| Arm | Events | Total | |
| Control/Standard of Care | 28 | | 49 |
| Favipiravir | 81 | | 107 |

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|--------------------------|--------|-------|-------|
| Outcome | 21 | Days | |
| Arm | Events | Total | |
| Control/Standard of Care | 28 | | 49 |
| Favipiravir | 81 | | 107 |

This will display three columns: Reviewer A, Reviewer B, and Final. The adjudicator will put the correct data in the Final column, adjudicating differences between the reviewers. Disagreements between reviewers are highlighted in red. The adjudicator can choose to input the same data as either of the

reviewers or neither of them if they were both wrong. To enter in data, hit the plus sign and fill in the cells. You may use the arrows icon to toggle between viewing reviewer decisions and the study. When done, to move on to the next study, hit Complete in the top right corner.

Navigation

BackSkipComplete

Study Design

Arms

| Reviewer A | | Reviewer B | | Final | |
|--------------|----------|--------------|----------|--------------|----------|
| Intervention | Arm Size | Intervention | Arm Size | Intervention | Arm Size |
| Daclatasvir | 12 | Daclatasvir | 11 | | |
| Sofosbuvir | 10 | Sofosbuvir | 10 | | |

Extracted Data

Filter Data Elements

| Reviewer A | | | Reviewer B | | | Final | | |
|-------------|--------|-------|-------------|--------|-------|------------|--------|-------|
| Age Median | | | Age Median | | | Age Median | | |
| Asthma | | | Asthma | | | Asthma | | |
| Timepoint | Time | Units | Timepoint | Time | Units | Timepoint | Time | Units |
| Baseline | 5 | Days | Baseline | 5 | Days | Baseline | 0 | Days |
| Arm | Events | Total | Arm | Events | Total | Arm | Events | Total |
| Daclatasvir | 2 | 12 | Daclatasvir | 4 | 11 | | | |
| Sofosbuvir | 1 | 10 | Sofosbuvir | 3 | 10 | | | |
| Cancer | | | Cancer | | | Cancer | | |

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