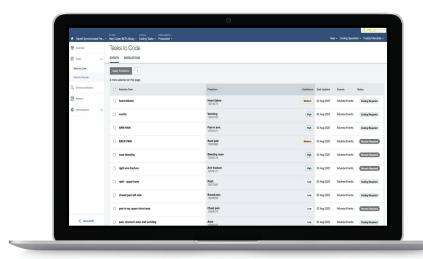


Rave Coder+: The Evolution of Automated Medical Coding for Rave EDC



Rave Coder+ provides medical coding for clinical trials in English and Chinese¹ using WHODrug and MedDRA dictionaries². Rave Coder+ is built on the <u>Medidata Clinical Cloud</u>® unified platform with a connected, automated medical coding workflow for coding verbatim terms entered in <u>Rave EDC</u>.

Rave Coder+ features 'Code with Confidence' - a new, unique coding algorithm that uses Machine Learning models trained with over 60 million historic coding decisions to deliver coding predictions with associated confidence levels.

- 1 Mandarin
- $2\ \, {\rm Japanese\ versions, the\ J-Drug\ dictionary, and\ other\ languages\ to\ be\ supported\ in\ later\ releases.}$
- 3 For English only in the first release. Chinese, Japanese and other languages to be supported in later releases.

Rave Coder+ Features and Benefits

Rave Coder+ is the next evolution of medical coding for Rave EDC and includes the following features and benefits:

Developed in Partnership with Users

Medidata developed Rave Coder+ in partnership with 38 of our customers and 200 users in a beta program of six releases, which enabled the rapid inclusion of customer feedback and rigorous testing of each new function.

Fast Configuration and Mid-Study Changes

All coding-related study configuration is contained within Rave Coder+, enabling faster study configuration and simpler and quicker mid-study changes without needing amendments to the EDC study build.



Code with Confidence

Medidata has access to the industry's most extensive clinical trial data set, including over 60 million historic coding decisions. We've developed a new predictive coding algorithm using Machine Learning models that are trained and tested with those past coding decisions to generate code predictions for any incoming verbatim.

When the models generate a prediction in response to a verbatim, they also include an associated confidence level of High, Medium, or Low to indicate how likely the prediction matches that of a medical coding professional.

Rave Coder+ automatically codes verbatims if a generated prediction matches or exceeds a confidence level threshold. Using the High confidence threshold, MedDRA predictions are expected to be 96% accurate, and WHODrug predictions are expected to be 93% accurate compared to decisions made by experienced medical coders. While browsing/searching to code a verbatim takes an average of 5 minutes per term, Rave Coder+ automatically codes in seconds⁴.

4 Based on the performance of our Machine Learning models across millions of coding decisions in tens of thousands of clinical trials. Expected accuracy for Medium and Low confidence levels are slightly lower but the number of verbatims that can be auto-coded increases. Accuracy data as of September 2022, values subject to change over time

Streamlined Coding Workflow

Verbatims entered in Rave EDC for medical history, concomitant medications, adverse events, and any other field containing a symptom, drug, or procedure are automatically flagged to Rave Coder+ for coding. If the automatically generated predictions are not a good match, medical coders can quickly find their own dictionary matches using Rave Coder+'s advanced browse and search capabilities. Coding decisions are automatically returned to Rave EDC to supplement the verbatim with the coded response.

The Medidata Advantage

Rave Coder+ results from an extensive beta test program and leverages Medidata's experience of tens of thousands of clinical studies. Integrated with Rave EDC, the most widely-used and preferred electronic data capture system⁵, Rave Coder+ delivers a connected workflow for quick and accurate coding of verbatims, ensuring high-quality data is available for faster review.

5 Source: EDC Market Dynamics and Service Provider Performance (4th Edition), Industry Standard Research, Dec 2020.