BIOMEDICAL RESEARCH

Tracker flags failures to report trial results

Computerized search of trial registry lists worst offenders.

BY HEIDI LEDFORD

An automated tool has trawled through thousands of records on the world's leading clinical-trials database to reveal which drug firms and academic institutions are not publishing the results of their trials.

The failure to publish is already well documented: multiple studies have variously reported that 25–50% of clinical-trial results remain unpublished years after the trials are completed. But software such as the tool described in a paper published online in *F1000Research* (A. Powell-Smith and B. Goldacre, *F1000-Research* http://doi.org/bsnn; 2016) on 3 November allows for a more comprehensive search than was previously possible, says corresponding author Ben Goldacre, a clinical-research fellow at the University of Oxford, UK. (The publication has yet to be peer reviewed.)

Automating the process also means that results can be updated regularly, which keeps the pressure on trial sponsors who fail to report.

COMPUTER CHECK

Goldacre and his Oxford-based co-author, web developer Anna Powell-Smith, developed the tool to search the ClinicalTrials.gov database for trials that were completed at least two years ago. The program attempted to match those trials with results published in that database or in the research repository PubMed.

Of nearly 26,000 trials evaluated, 45.2% had no published results. The team also built a website (go.nature.com/2emchhz) that enables users to view clinical-trials sponsors in order of who is the best — or worst — at publishing their results. "If anyone wants to improve their score or improve their ranking, all they have to do is publish their results," says Goldacre.

Automated analyses are increasingly the norm for studies that scan for clinical-trial transparency, says Jennifer Miller, a medical ethicist at New York University's Langone Medical Center. She points to the Good Pharma Scorecard initiative launched by Bioethics International, a charity that Miller founded. The initiative ranks new drugs and companies on clinical-trial transparency on the basis of automatic analyses and machine learning. But, unlike with Goldacre's tool, the Scorecard team checks work manually and confirms findings with clinical-trial sponsors, she says.

Automating the search can lead to a sacrifice in precision, Goldacre acknowledges. For example, the search might miss published results if they are not tagged with a number assigned by the ClinicalTrials.gov database, or if the journal in which they are published is not listed in PubMed.

Despite some discrepancies in how individual studies were scored, Goldacre says, the trends from his tracker are similar to those previously published by manual surveys on smaller subsets of data. He hopes that the ability to regularly update results will incentivize trial sponsors to improve. "This is such a serious business," he says. "We need to maintain the pressure." ■