

## **Most Innovative Cancer Drugs Are Not Prioritised**



Innovative cancer drugs take longer to pass through clinical trials, licensing and appraisal for availability on the National Health Service (NHS) than more conventional treatments, shows a recent study published in *Drug Discovery Today*.

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In an overview of all drugs licenced through the European Medicines Agency (EMA) from 2000 to the end of 2016, the research team from The Institute of Cancer Research (London) found that increasing numbers of drugs are being authorised. The average number of drugs subject to the EMA licencing increased from a median of six per year for 2000–2008, to 13.5 per year for 2009–2016. Between 2000 and 2016, there were 64 drug authorisations for haematological, 15 for breast, and 12 for skin cancer, but none for oesophageal, brain, bladder or uterine cancer.

The researchers used three categories of innovation – high, moderate and low. A highly innovative drug would act against a new molecular target or via a novel mechanism, represent a novel class of compound in an area of high unmet need, be novel in its application, or offer improved targeting through use of a biomarker. A subgroup of drugs acting against novel targets or with a new mechanism of action was assigned the very highest level of innovation.

There was evidence that the most innovative drugs were not being prioritised for EMA licensing and National Institute for Health and Care Excellence (NICE) approval, forcing patients to wait longer for the latest treatments. The average time before the drug becomes available on the NHS increased from 12.8 years for drugs licensed in 2000–2008 to 14.0 years for those approved in 2009–2016. Also, only 38% of highly innovative cancer drugs received a positive recommendation while for moderately and low-innovation categories the rates were 53% and 40% respectively.

The results show that to go from the filing of the patent through to NHS patients, the most innovative drugs took 3.2 years longer than low-innovation treatments, 14.3 years vs. 11.1 years. For the medium-innovation treatments the period was 13.5 years.

The longest seems to be the period from the start of a phase I trial through to EMA authorisation: 8.9 years for the most innovative category vs. 8.7 years for moderately and 6.8 years for low-innovative drugs.

In conclusion the researchers point to a need to build stronger incentives into the whole system of drug discovery and development, and to improve patients' access to the latest treatments by streamlining regulations on clinical trials and licencing.

## References

Sharpe E et al. (2020) From patent to patient: analysing access to innovative cancer drugs. Drug Discovery Today [in press]. Available from <a href="https://www.sciencedirect.com/science/article/pii/S1359644620300301">https://www.sciencedirect.com/science/article/pii/S1359644620300301</a>

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Published on: Fri, 31 Jan 2020