

Breast Cancer and Data Sharing

BACKGROUND:

Analyzing individual patient data (IPD) from completed clinical trials to glean additional insights about patient populations is a key benefit of data sharing and reuse. Information gathered may provide patients with more complete information to guide treatment decisions and shape realistic expectations of outcomes when starting treatment regimens with new interventions or new combinations of interventions. Dr. Ash Hopkins' research using IPD ranges from rheumatoid arthritis to several types of cancer, including lung, urothelial, and breast cancers.

RESEARCHER QUESTION:

Dr. Ash Hopkins is a Senior Research Fellow and leads the Clinical Cancer Epidemiology Lab at Flinders University, Adelaide, Australia. The Lab's primary research focus is "to deliver actionable



prediction strategies and breakthroughs that improve the lives of patients with cancer"; this is also the primary focus of Dr. Hopkins' research using the Vivli data repository. Over the last three years, Dr. Hopkins and his colleagues have submitted multiple research proposals to explore and assess data gathered in oncology clinical trials.

"Vivli and processors like it - they're really the only places that we've ever had to pull together data from multiple different providers" - Dr. Ashley Hopkins

FINDINGS

Key findings from these research initiatives include identification of pre-treatment patient-reported outcomes as independent prognostic factors of overall survivors and progression-free survival. Researchers were also able to identify factors that could potentially help with providing a more comprehensive assessment of individual risk.

IMPACT

The research projects undertaken by Dr. Hopkins and colleagues have produced more than 15 publications to date, in journals including the Journal of Clinical Oncology, The European Journal of Cancer, and Bladder Cancer.

Additionally, Dr. Hopkins indicated in a conversation with Vivli that the team's research endeavors are contributing to the development of methodologies for using large scales of individual patient data, and to initiatives supporting the standardization of the wealth of data available across the breast cancer research domain in particular.

RESEARCH PROCESS:

The research team set out to answer a series of questions about whether patient reported outcomes could serve as reliable predictors of therapeutic and adverse events in cancer treatment. To do this, the team submitted three research proposals which requested access to a total of 20 studies including some 50,000 participants relevant to treatment and overall survival for a number of different cancer diagnoses. Dr. Hopkins noted that access to data through Vivli provided the team with an unprecedented opportunity to pull together data from multiple trials and multiple providers, and that the shared data was generally more complete and more standardized.

[Find out more about requesting data from Vivli.](#)

NEXT STEPS:

READ MORE

[Prediction of severe neutropenia and diarrhoea in breast cancer patients treated with abemaciclib.](#) (The Breast)

[Value of the Lung Immune Prognostic Index in Patients with Non-Small Cell Lung Cancer Initiating First-Line Atezolizumab Combination Therapy: Subgroup Analysis of the IMPOWER150 Trial.](#) (Cancers)

[Machine Learning for Prediction of Survival Outcomes with Immune-Checkpoint Inhibitors in Urothelial Cancer.](#) (Cancers)

[Smoking and immunotherapy efficacy in lung cancer by PDL1 subgroups: An individual participant data meta-analysis of atezolizumab clinical trials.](#) (European Journal of Cancer)

[Efficacy of first-line atezolizumab combination therapy in patients with non-small cell lung cancer receiving proton pump inhibitors: post hoc analysis of IMpower150.](#) (British Journal of Cancer)

[Enhanced Bellmunt risk score for survival prediction in urothelial carcinoma treated with immunotherapy.](#) (Clinical Genitourinary Cancer)

[Concomitant beta-blocker use is associated with a reduced rate of remission in patients with rheumatoid arthritis treated with disease-modifying anti-rheumatic drugs: a post hoc multicohort analysis.](#) (Therapeutic Advances in Musculoskeletal Disease)

[Concomitant Proton Pump Inhibitor Use and Survival in Urothelial Carcinoma Treated with Atezolizumab.](#) (Clinical Cancer Research)

[Association between obesity and remission in rheumatoid arthritis patients treated with disease-modifying anti-rheumatic drugs.](#) (Scientific Reports)

[Interview with Dr. Hopkins](#)