

ACCORD: A Comprehensive Cancer Patient Database

A cancer patient registry and outcomes database providing real time accurate patient pool demographics and patient history information.

<<< ACCORD v 2.0: Comprehensive Cancer Patient Database

Australian Comprehensive Clinical Outcomes and Research Database

The Australian Comprehensive Cancer Outcomes and Research Database (ACCORD) is a means by which Cancer clinicians and researchers can store and maintain data related to Cancer patients' clinical outcomes and demographic characteristics. Launched as a pilot study in 2004 by Cancer Trials Australia in partnership with the Ludwig Institute of Cancer Research, ACCORD is currently being used at five different sites in Victoria, including the Royal Melbourne Hospital, the Western Hospital, Box Hill Hospital, Peter MacCallum Cancer Centre, and Austin Hospital and in Adelaide at the Royal Australian College of Surgeons. ACCORD provides clinicians and researchers with a comprehensive, reliable and easily accessible dataset, featuring real-time querying capabilities, on all cancer patients treated at Cancer Trials Australia sites and includes data on all tumour types including brain, breast, lung, colorectal, haematological malignancies and more. In addition, ACCORD interacts with hospitals' Patient Administrative Systems to identify new and returning cancer patients.

Accord will be installed at a number of new sites in 2008 including Royal Adelaide Hospital (SA), Queen Elizabeth (SA), Westmead Hospital (NSW), Prince of Wales (NSW), Royal Brisbane (NSW), Royal Prince Alfred (NSW), The Alfred (VIC) and Canberra Hospital (ACT).

Better Cancer Treatment Strategies for Clinicians, Researchers and Patients

For Cancer clinicians and researchers, this system helps them to more accurately analyse the clinical and demographic characteristics of cancer patients and design better treatment plans. Additionally, ACCORD assists in Cancer clinical trial practice and research by providing researchers with a more precise indication of the pool of patients benefiting from clinical trials. Patients and carers benefit from better quality assurance in clinical trial and treatment programs.

Improving ACCORD's Performance for the Future

The ACCORD pilot study version included an initial comprehensive data set on colorectal cancer and minimal data sets on other tumour types including brain, breast, haematological malignancies, lung, melanoma and prostate. The completion of the ACCORD pilot study in 2004 highlighted the need to upgrade ACCORD to ensure the system could incorporate and support new datasets on more tumour types and would continue to meet the needs of Cancer clinicians and researchers in the future. With specialist expertise in clinical application development and information systems integration for the Health sector, VPAC was brought on board to execute the upgrade and create front and back-end improvements that would increase the extensibility and scalability of the database for long-term use and changing R&D requirements. VPAC, in collaboration with the BioGrid team, revised data items and data types, improved the user interface and enhanced searching, querying and reporting capabilities. In addition, VPAC improved the interaction of ACCORD with the hospitals' Patient Administrative Systems to enhance useability and accuracy.

A new module for chemotherapy prescribing was developed in 2007. This allowed oncologists to prescribe chemotherapy treatment regimens quickly with automatic dose calculations and a PDF prescription printed out. The data is saved for timely and accurate information retrieval which can be viewed by staff administering the chemotherapy.

In conjunction with BioGrid, comprehensive datasets are currently being developed for the Brain and Head & Neck tumour types, with Prostate, Sarcoma, Thyroid, Upper Gastrointestinal and Renal in the near future.

ACCORD was originally developed with ASP.NET web development technology and C# programming language on a .NET v1.1 framework and ran on an IIS Webserver 5.0 and an SQL Server 7.0. Web applications developed using ASP .NET and C# often face slow response times from web servers for particular actions where web applications need to reload the entire page from the server. With the use of Anthem .NET AJAX library technology, VPAC was able to build a new front-end that reduces response time by updating only part of the page from the server.

ACCORD is an essential system enabling cancer clinicians and researchers fast, accurate and reliable access to clinical and demographic information on cancer patients. Access to such information facilitates the development of improved clinical trials and cancer treatment plans and ensures cancer patients and clinical trial participants receive the highest quality care and support. The upgrades executed by VPAC have increased the flexibility and extensibility of the database and will ensure that ACCORD continues to meet the changing and growing demands of cancer researchers and clinicians in the future.

For further information on ACCORD v 2.0 or on VPAC's clinical application development and information systems integration services for the Health sector, please contact Alan Lo on +61 3 9348 1722 or alan@vpac.org.

