

The Department of Health & Community Services

JADE Care Community, an Electronic Patient Record System



THE ORGANISATION



The Department of Health and Community Services in Australia's Northern Territory is the primary provider of health and community services to the Northern Territory's 200,000 residents. The Department uses JADE Care Community, Jade's world-leading case management system, to improve their delivery and the overall management of their community care services.

The historic role of hospitals as the central institution in modern healthcare is changing to one of integration with a broader range of community health and other non-health family or social services. Healthcare services throughout Australasia are being integrated, with the management of care spreading across the entire continuum from specialist inpatient services to outpatient clinics to GPs' surgeries and rural services.

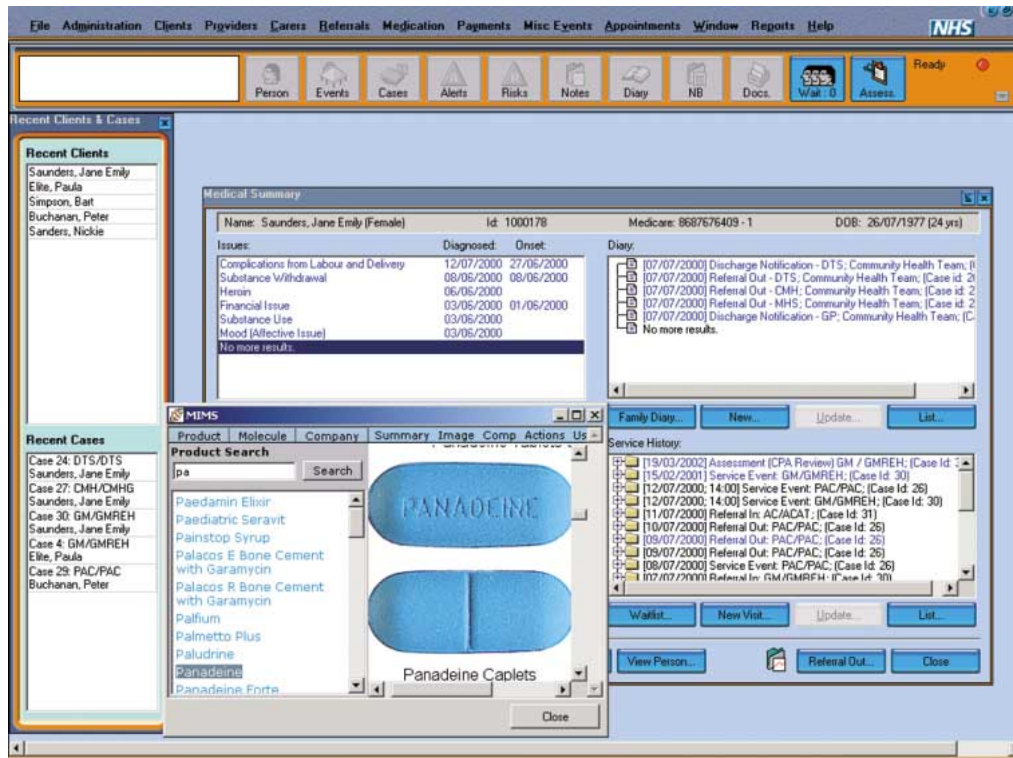
The Department of Health and Community Services is the primary provider of health and community services to the 200,000 residents of Australia's Northern Territory. The organisation operates five hospitals, 45 urban and rural community health clinics and approximately 50 workunits providing specialist aged and disability, child welfare and mental health services to a client population spread over an area the size of France, Spain and Italy combined.

Jade is helping the Department to have one of the most advanced multi-site integrated hospital IT infrastructures of any health provider in Australia. With the largest research and development operation of its kind in Australasia, Jade's healthcare division has earned recognition for working in close partnership with customers to deliver successful, low cost solutions for complex healthcare requirements.



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JADE Care Community is an electronic patient record system that has been purpose-built for case management and the delivery of co-ordinated client care.



THE BUSINESS CHALLENGE

One of the greatest challenges the health sector faces in the move to this decentralised, community-oriented model is allowing secure access to that lifeblood of the health sector: client information. The Department of Health and Community Services' client service delivery had been supported by three large and ageing information systems that were difficult and expensive to support and maintain, and lacked potential for further development. These systems were, in turn, supplemented by more than 100 small, ad hoc information systems that utilised a variety of technologies.

After unsuccessfully searching throughout Australia and North America for a system to deliver an NT-wide integrated solution, The Department of Health and Community Services decided to partner with Jade to build a customised information system to meet their requirements.

THE SOLUTION

JADE Care Community is an electronic patient record system that allows authorised clinicians to access a complete health record from the point of care. The integrated Case Management model enables the delivery of co-ordinated client care within a multi-disciplinary service.

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THE SYSTEM

Built entirely in JADE, JADE Care Community contains a suite of core functions that can be enabled for users within any service or program area, optimising the sharing of client information. These core functions include:

- **Client Master Index:** a central client register shared between JADE Care Community and the Department of Health and Community Services' existing applications. Data in the index is replicated across systems and synchronised in realtime.
- **Referral Management:** a common referral or intake module which operates in a standard manner across services and is complemented, where appropriate, by secured service-specific fields.
- **Case Management:** basic case management functions which allow case creation, linking of service events, recording of involved service providers, case closure or discharge and various views of case data that are common to all service types.
- **Event Management:** the functions associated with recording service events are shared across services. Codes associated with this are service specific.
- **Document Management:** JADE Care Community can run Microsoft Word sessions within the application and link documents to cases or service events. Access to client documents is then controlled by JADE Care Community security and results in a common standard of security across all client information. This feature allows a more complete view of client histories than data alone is capable of providing.

Powerful security ensures that only authorised staff can access client records. The application can identify each user with a certain part of the organisation and present them with only the required subset of data and functionality that they are entitled to view.

As part of its commitment to providing a cost-effective information system, JADE Care Community avoids expensive operating costs and third party middleware by running on a standard Windows NT platform that is deployed over Wide Area Networks, including the Internet, using JADE Smart Client Technology™.

Case Management Functions

- Client and case registration
- Comprehensive electronic client record
- Searchable progress notes
- Diagnostic results inquiry
- Referrals
- Care planning (personal and population)
- Service event recording
- Diary management
- Group activity management
- Issue management
- Diagnosis coding
- Reviews
- Outcomes and results recording
- Appointment and resource scheduling
- Document and record management
- Equipment management
- Reporting
- Security and systems codes management

Primary Care

- Consultation workflow
- Population group query
- Family diary
- Prescribing and PBS dispensing
- HIC billing online
- Results reporting

Community Health

- Child and maternal health
- Notifiable and other disease control
- Immunisation
- Palliative care
- School health
- Women's health

Mental Health

- Forensic mental health
- General mental health

Aged and Disability Services

- Aged care assessment
- Adult guardianship
- Challenging behaviour/disability resource support
- Equipment assessment and management
- Taxi subsidy schemes

Family Community Services

- Child protection
- Family support services
- Protective assessment
- Substitute care and placement management
- Places of care, carer and payments management

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KEY DEVELOPMENT ISSUES

Crucial to the success of such a large, complex project was JADE's multi-user development environment. As one developer compiles code in one part of the application, this is reflected instantly throughout the development environment to all other developers. This enables integration issues between different parts of the application to be addressed as they arise, avoiding the huge integration problems caused when teams using single user development environments try to compile applications near the end of a project.

Typical of any large-scale implementation, the business requirements identified at the beginning of the project evolved over its development. JADE Care Community has a sophisticated architecture that uses locally-managed codesets to define many of the business rules, enabling rapid adaptation to changes in business requirements. Built upon a high performance object-oriented database, JADE Care Community is compatible with open industry standards for easy access to management information and for implementing inter-system interfaces.

To ensure the integrity of data across more than 1000 users (with between 300-400 concurrent users) JADE Care Community had to have transaction management and database performance of mainframe class. JADE's seamless integration between its object database and development environment enabled the development of a very robust system, while mainframe-style database features, such as roll-forward recovery, help to ensure the safe management of the Department of Health and Community Services' 400,000 plus client records.

THE FUTURE

With JADE Care Community the Northern Territory's Department of Health and Community Services now has improved overall management of community care services. More efficient channels of communication have enabled them to minimise duplication of service delivery and better co-ordinate client management and service provision. While it was not the primary focus of the Department's system redevelopment, they also now have vastly improved management reporting and other statistical information which, in turn, assists with financial and budget planning.

Continuing development has enhanced JADE Care Community, making it the leading information technology solution for community-based healthcare service providers. With Jade's commitment to research and development, JADE Care Community will continue to lead healthcare information technology initiatives.



JADE™

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