

interRAI systems for the Provision of Care: Putting the Care **First**

interRAI systems are designed, first and foremost, to support assessment and care planning on a day-to-day basis in the immediate care environment. Supplementary uses include local and system wide administration for activities such as service planning, workforce deployment, quality improvement, eligibility, regulatory oversight, payment and research. Because interRAI data elements are robust, they have the potential to serve all of these purposes with a single implementation. This adheres to the 'collect once, use many times' principle.

This paper focusses on the local clinical / care use of interRAI systems. First, the design principles are described. Then a description of the various 'applications' is provided, followed by some suggestions about how a software system might be designed to ensure that it is relevant and valued by the personnel who collect and use the information on a day-to-day basis.

Finally, a description of one system – the interRAI Long Term Care Facility – is provided as an illustration.



Contact information

interRAI Australia

Website: www.interrai-au.org

email: interrai@uq.edu.au

Tel: interRAI Australia 61 7 31765530

interRAI international:

Website: www.interrai.org

email: info@interrai.org

Prepared by interRAI Australia
August 2021

Contents

interRAI systems: Care provision first.....	4
Structure of an interRAI system	4
Applications	5
Risk and diagnostic screeners.....	5
Scales	5
Clinical Assessment Protocols.....	5
For local service administration.....	5
For system wide administration.....	6
Implementing an interRAI system.....	6
Appendix: The interRAI Long Term Care Facility assessment system.....	8

Table 1: Applications and their users

	Daily care	Service administration	System administration
Individual data items	✓✓	✓	✓
Screeners	✓✓	✓	✓
Scales	✓✓	✓	✓
Clinical assessment protocols	✓✓	✓	✓
Casemix tools		✓	✓
Quality indicators		✓	✓

Applications

There are 3 types of applications that are relevant to day-to-day care provision:

Risk and diagnostic screeners

These applications identify individuals who are exposed to greater risk of adverse outcomes than the general population among which they are located. For example, the falls risk screener in residential care identifies residents who have relatively high risk compared to their fellow residents. As a group, the residents of an aged care facility are at significantly higher risk than the general population – the application does not refer to this aspect. Examples of such risk which are present in many systems include falls and pressure injury.

Diagnostic screeners are similar to risk screeners except that they are designed to identify individuals within a population that are likely to have an existing problem that is not readily apparent – for example delirium or under-nutrition.

Scales

Scales are calculated from multiple items to compile a summary of a group of related issues (e.g., activities of daily living) and to characterise the extent of a phenomenon (e.g., communication, cognitive function, pain). Scales are scored from zero, which represents the value for an unaffected individual. Many individual items are also (ordinal) scales, usually reflecting the extent or frequency of a problem (e.g., eating – how much assistance is required, and continence – how often the problem occurs). A similar scoring system to that of composite scales is used.

Many scales are present in multiple interRAI systems, making them a very useful tool for comparisons of caseload among facilities, or across entire delivery systems. For example, the cognitive performance scale provides a valuable capability to compare the number of individuals and the severity of the problem across facilities or services.

Clinical Assessment Protocols

Clinical assessment protocols (or CAPs) identify individuals within a service population who may respond to specialised preventive, treatment or management strategies. They do not target problems that are present in most individuals in a program (for example, bladder incontinence in a residential long term care program for older people), rather they target those individuals with problems where there is evidence that an intervention may improve the outcome (either through prevention or improvement). The science underpinning CAPs is continuously evolving, both as a result of interRAI research and the broader international research effort. Thus, over time, CAPs are created or modified in line with this evidence.

For local service administration

Individual data items, screeners, scales and CAPs are useful tools for service administrators. They assist in understanding the caseload on both a day-to-day basis, and to monitor changes over time. This in turn assists in service planning and resource allocation.

Three additional applications assist with caseload management and quality improvement – Casemix tools and quality indicators are calculated from conventional interRAI systems. Further toolsets, the Self-Report Quality of Life systems provide administrators with the consumer perspective both on service quality and on their own quality of life.

Casemix tools categorize individuals into groups with similar care and resource requirements. This assists in workforce / resource allocation at the service level and may provide a basis for resource allocation among facilities in a large provider network.

Quality indicators are calculated directly from an individual assessment (e.g., the proportion of individuals with a pressure injury) or series of assessments (e.g., the proportion of individuals who declined in mobility across a 3 month period). Quality indicators can be used to monitor change across time within a facility, or to make comparisons among facilities to support benchmarking. When compared among facilities, they provide powerful information to identify areas of under-performance. They are sensitive to change and are thus helpful in monitoring change over time.

Comparisons among groups must be made with care, as each facility or organisation may attract a different profile of residents. For example, a facility may avoid admitting individuals with behavioural issues, and this may result in a lower use of psychotropic medication. Another organisation may avoid providing care to bedfast individuals, with a consequent lower prevalence of pressure injury. “Risk-adjustment” techniques are used to compensate for these differences. This process is complex and requires special expertise. It is therefore mainly applied when governments / regulators wish to provide public reporting of performance to assist consumers to make choices of facilities.

For system wide administration

System level administrators utilise many of the applications that are valuable to local administrators. Government and other regulatory agencies value raw data and scales to evaluate the nature of the caseload for planning purposes. Casemix tools may be utilised as a basis for payment, and quality indicators assist in evaluating organisational and system-wide performance. Information may be used for facility accreditation, public reporting and to facilitate consumer choice.

Implementing an interRAI system

interRAI systems are designed primarily to support assessment and care delivery. Administrators and regulators are secondary users. interRAI systems require a software environment to enable full exploitation of the benefits.

Software design and associated workflow are critical to the optimal use of an interRAI system. Here we suggest strategies to ensure that software and workflows are designed to optimise their usefulness to care providers while retaining their reliability for administrative and research purposes.

- interRAI observations should be integral to the standard mandatory (core) assessment performed by the organisation (not a separate form to be completed in addition to other information)
- Assessment should be commenced at arrival and updated as new information becomes available. Some items can be scored immediately, but many require a period of observation (e.g., continence, behaviours). The interRAI standard is (at least) 3 days.
 - Applications can be calculated as the required data fields are populated
 - As data is updated, the care plan should be updated
- The core assessment should prompt the assessor to consider supplementary assessments and add items to the care plan
 - interRAI’s Clinical Assessment Protocols, screeners and scales should be utilised to inform further assessment and care planning

interRAI systems for care provision

- A 'final' initial assessment and care plan should be 'signed off' (clinically and digitally) at a defined time point after admission (e.g., 7 days). The data on that date then represents baseline information against which progress can be measured for the remainder of the stay.
- Subsequently, individual observations should be updated if and when the person's status changes.
 - As assessments are updated, prompts to review the care plan should be offered
- Protocols and software systems should be designed to ensure that care staff are aware of any variation in status that is not consistent with the data held in the system.
- Formal review and 'sign-off' of the assessment and care plan should occur at regular intervals after admission (e.g., 3 monthly). This ensures that the care plan is up to date and provides data to score quality indicators.
- Where data is used for periodic regulatory reporting, an alert should be provided to care staff that a formal report is required. They should then check that the assessment is up-to-date. If regular updating has occurred then the report should be accurate at the time of reporting.
- If a transfer or discharge is to occur, once again, the data should be checked to ensure that it is up-to-date.
- interRAI observations and applications should be exploited to improve service administration. This includes service planning, caseload analysis and quality improvement (via QIs).

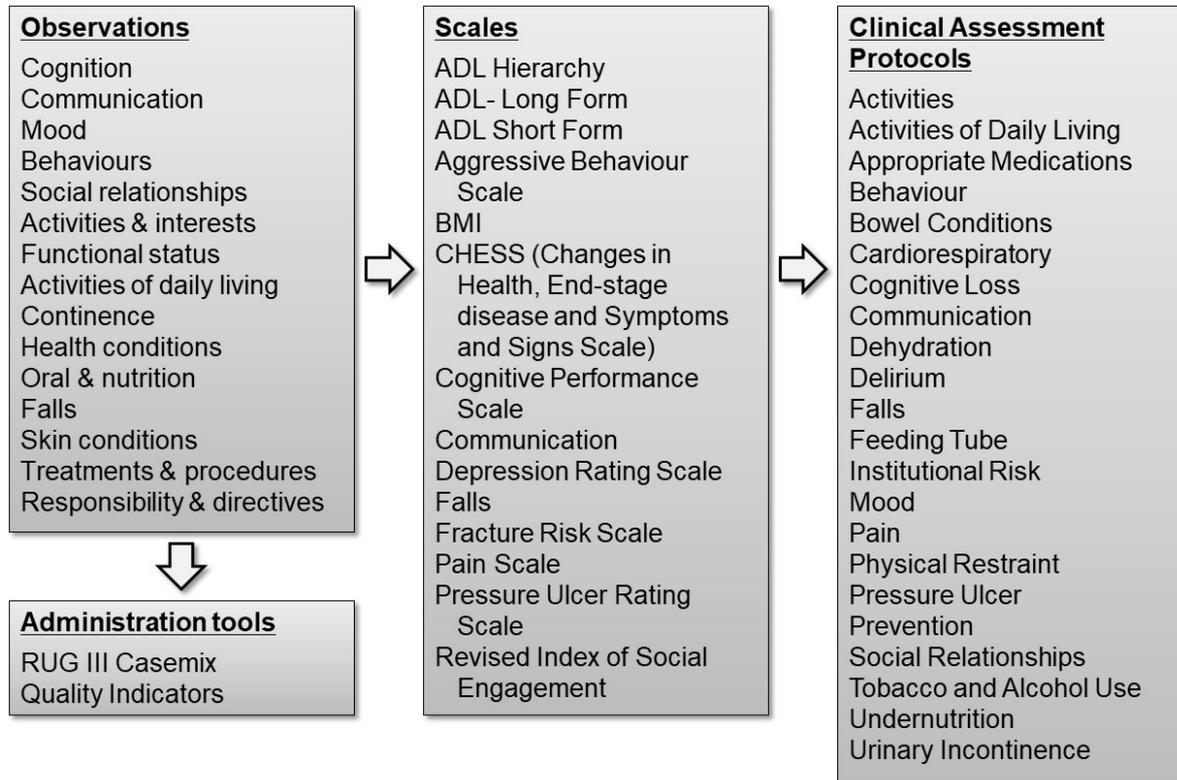
Summary

interRAI systems offer a wealth of potential benefits to both care providers and regulatory agencies. Optimal implementation requires careful consideration of the needs of all stakeholders, but with priority given to use by the care givers. Such priority ensures genuine benefits for consumers of the service, efficient use of staff time, provider-driven quality improvement and robust information for regulators.

Appendix: The interRAI Long Term Care Facility assessment system

Here, an example of a mature interRAI assessment system is provided to illustrate its scope of observations and range of applications for care-givers and administrators.

The interRAI LTCF¹ is designed to support the care of older individuals living in high dependency long term care facilities. It comprises 26 demographic and transactional items, 286 clinical observations, and a wide range of scales, clinical assessment protocols and administrative tools.



The full item sets can be viewed by purchasing manuals at www.interRAI.org or by contacting interRAI Australia at interrai@uq.edu.au

¹ It is now in its fifth version. Early versions were entitled RAI-MDS, until 2006, when the interRAI suite was launched wherein all suite members commenced with the prefix 'interRAI-'. Current version is labelled v10.