

Common Intake Assessment Tool

Bringing comprehensive, reliable and consistent intake practices to CCACs across Ontario

The Continuing Care e-Health Council is a division of the Ontario Ministry of Health and Long-Term Care (MoHLTC) that works closely with the Ontario e-Health Secretariat to enhance patient and client care by delivering more efficient tools and instruments for health care providers. The Council was created in 2002 with the strategic goal of leveraging technologies to “Enable One Person, One Record” in Ontario. The Continuing Care e-Health Council oversees various e-Health initiatives aimed at delivering improved health outcomes to Ontarians. One such initiative is the Home Care Client Assessment Project (HC CAP) which is developing and delivering tools for use in Community Care Access Centres (CCACs) across Ontario. The Council’s vision and goal is to contribute to a healthier Ontario and increase the quality of life for Ontarians.

Business Situation

In the 2005 OACCAC’s Pre-Budget Submission to the Standing Committee on Finance and Economic Affairs, 562,000 Ontarians were reported to have received home care, and this number is expected to grow by 10% annually. The current 42 CCACs in Ontario employ approximately 3,000 case managers in total. These case managers are responsible for conducting intake assessments for anyone coming through the CCAC system that requires home care or community- based services. Research from the Continuing Care e-Health Council revealed that with the existing paper-based system, each intake assessment can take between 90-120 minutes to complete. The Continuing Care e-Health Council began to review strategies and technology solutions that would minimize the administrative burden and allow for greater standardization in the Intake Assessment process. Thus, the focus of the solution is to shift from the current system paper-based system to an automated electronic system.

With the paper-based system, case managers are required to fill out forms that consist of about 100 questions with the client. On completion, these forms are usually faxed



to the office where the information is entered into a Legacy system, essentially repeating the entire process again. Sometimes the faxes turn out illegible or are missing information, which causes incorrect data to be entered and used in the system. Frequently, an administrator needs to contact the case manager to obtain clarification, which further delays the completion of the Assessment.

An additional challenge is the inconsistency of the information collected in assessments that can cause duplication in the collection process and hinder the sharing of information across the province. Information collected at one location might not be the information required by another location. Thus, every time a client changes care locations within Ontario, it is possible that he or she will be reassessed. This redundancy adds more administrative work for the health care providers.

The lack of provincial standards in the assessment process also prevents the sharing of performance data that could be used to compare results, and outline trends, to improve service.

With home and community-based care experiencing growth, Ontario needed an innovative technology-driven process that would standardize intake assessments, reduce paperwork duplication, and allow for future scalability that would fall in line with the Continuing Care e-Health “One Person, One Record” initiative and overall health care transformation in Ontario.

"Delivering results to improve care and ensuring consistent and equal access to care is what Continuing Care e-Health is all about."

(Imagine the Possibilities Video – CCEHealth)

Solution

The Home Care Client Assessment Project (HC CAP) is one of the many Continuing Care e-Health initiatives underway aimed at delivering improved health outcomes in Ontario. HC CAP is implementing common assessment instruments and processes to help case managers gather adult client information efficiently and effectively within CCACs across Ontario. A Common Intake Assessment Tool (CIAT) has been designed to streamline the intake assessment process by standardizing current practices. The CIAT delivers more comprehensive, reliable and consistent intake practices to CCACs. Assessments are streamlined by standardizing the definitions and processes in capturing client information to allow sharing of information across the province. In August 2005, MedShare was selected as the software development partner to assist in building the CIAT software application. To ensure the effectiveness and accuracy of the tool, HC CAP worked with health care practitioners, a Senior Advisory Expert Panel, the industry experienced software team from MedShare, and clinical researchers from interRAI (International Resident Assessment Instrument). CIAT incorporates the latest interRAI algorithm for providing short-stay assessment for home care.

Case managers are responsible for assessing new clients at various locations including hospitals, in homes and in institutions. According to OACCAC's 2005 Pre-budget submission report, almost 60% of assessments are performed in hospitals, and 36% are done in the community. CIAT allows case managers to work in all of these settings using laptops. The information entered at the remote location is seamlessly synchronized with the provincial database. This ability eliminates the redundancies spent on reentering or validating data numerous times – a major problem with the paper-based system.

Leading Technology from MedShare

To develop CIAT, MedShare used Microsoft's Smart Client technology, using a service oriented architect, SQL Server

and Visual Studio 2005. CIAT is a true Windows application designed with the Windows XP user interface.

This architecture allows the application to work with a laptop computer and function while disconnected from the network. Assessments can be performed with the software at the point of care, without wireless or wired connections.

The CIAT application uses several key security features that are crucial in the health care industry in order to comply with government privacy and data security regulations. CIAT adheres to the Personal Health Information Protection Act (PHIPA) and meets privacy and data integrity standards. CIAT also passed the Ontario Government's Threat Risk Assessment and Privacy Impact Assessments, and adheres to Continuing Care Data Standards which have been approved by Ontario Health Informatics Standards Council (OHISC) data standards.

The CIAT application leverages Active Directory login, a secure login and authentication system that was already used in The Ministry of Health and Long-Term Care and the CCACs. Thus, users have a single login with access to multiple applications. CIAT is a role-based application, which means a user's login defines the role that he or she has within the system. Each role is given specific permissions that determine the access and authorization level of the user. This further ensures the privacy of the client, retains the integrity of the data in the system, and provides for full audit history.

An important requirement of the CIAT application is the ability for case managers to work offline in disconnected mode without losing any of the functionality of the tool. The case managers simply check-out the client records they require to work remotely. When a client record is checked-out, the record cannot be modified until it is checked back into the system. When client records are checked back in to the system, the information at the centralized databases is synchronized and updated immediately. This eliminates outdated or inaccurate data in the databases.

CIAT was designed to fit the CCAC business rules and comes with client conflict resolution capabilities. When a user uploads data entered while disconnected and there is a name change, wrong data, mistakes, or other modifications to information, the new client data can be merged with any existing data to correct the errors; or the user can choose to ignore the previous data and replace it entirely with the new data. Client conflict resolution capabilities help reduce errors in records and deal with changes in records to make sure that information in the system is up to date and accurate.

The CIAT software aids case managers in determining whether the client is suitable for home and/or community-based care. The software integrates the interRAI Contact Assessment algorithms. interRAI is a network of researchers and clinicians from 26 countries focused on research and development of algorithms.

These algorithms can make evidence-based clinical practices and policy decisions on a given collection of information gathered through standardized assessment questions. For each instrument, the algorithm uses a common set of questions and responses. This common measure improves the continuity of care in different care settings. According to Dr. John Hirdes, a University of Waterloo professor of Health studies and gerontology, a Board Member and Canadian representative of interRAI, the interRAI CA algorithm allows CIAT to identify individuals that require medical intervention or home care with its numerical risk score feedbacks. The score indicates the probability that the assessed individual needs rehabilitation, nursing or home care. Ultimately, the case manager will make the final decisions regarding care for the client, but the interRAI CA score can be used to set priority of service, or it can be measured against a set threshold that determines the need for care service. Having interRAI built into the tool means having reliable algorithms and quantifiable outcomes to meet the business and clinical needs of the Ontario CCACs.

Benefits

The first phase of the Intake Assessment Project was completed in July 2006, at which time individual CCACs across Ontario began piloting the tool with positive results.

CIAT allows clients to be assessed anywhere in the province and transferred to a different region without the need for reassessment. An incomplete assessment can also be reassigned to different regions in the province to be completed by health care providers at the new location. Since definitions and processes are standardized, information can be shared and re-used consistently across the province without the worry of misinterpretation. The ability to share information helps to reduce duplication and inefficiencies thereby resulting in more time for client care.

The implementation of CIAT improves efficiencies and streamlines the business processes at the Ontario CCACs. CIAT allows key client information to be gathered and transferred quickly, thereby ensuring that case managers have the right information at the right time to determine the appropriate service that fits the client's needs.

Moreover, with a standardized system, performance data can be gathered to outline trends and improve service – providing better health outcomes for the residents of Ontario.

To learn more about the Common Intake Assessment Tool, contact MedShare at **1-800-624-0014** or visit us at **www.medshare.com**.

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