

OCR for Forms™ puts Community Nursing Forms on the Fast Track at Newcastle City Health Trust

The City Health Trust has achieved dramatic improvements in Community Nursing Forms administration, eliminating a two month backlog while also reducing resources by 50%.

Background

Newcastle City Health Trust is responsible for all Community Nursing and Mental Health Services within Newcastle and North Tyneside catchment area, deploying 350 Community Nurses from 17 Clinics, sited across three Primary Care Groups. All supporting Information Technology (IT) services are provided by an in-house Information Directorate. A network of clinical and administrative systems supports each Trust service.

New Patient Administration System

A cornerstone of the Trust's IT infrastructure has traditionally been its Patient Administration Systems. Up until recently an aging Community Care system provided IT support for the Community-based Clinicians. When compared to current generation systems, its functionality was limited, only providing statistical information for Health Trust Administration purposes and producing Department of Health returns. In order to address the growing interest from Clinicians in gaining direct access to more detailed patient-based information; a new integrated Patient Administration system (CUPID) was developed in-house, using Microsoft Access, to address Community Nursing Services.

Business Case for Automated Data Capture

As part of the new development, it was deemed essential that the information be timely, accurate and up-to-date for Clinicians, and a more efficient method of populating and updating the database was considered necessary.

Traditionally, the data had been collected by the Clinicians, through Psion Organizers and paper-based systems. All forms and data

modules were sent to the IT Directorate to be processed for statistical analysis. This approach was time consuming and error prone and would typically take two data entry operators six to eight weeks to process the 1,400 weekly forms submitted. As part of the new operation, the Clinicians needed more detailed and timely information in order to: keep track of activity, plan resources and manage caseloads more efficiently. As the current data entry methods were already under strain, and not performing efficiently with current volumes of information, it was obvious that an alternative approach must be sought.

Alison Thoburn – Information Strategy Coordinator for Newcastle Health Trust commented, "We needed a solu-

tion which would enable us to capture great volumes of clinical data in a non time-consuming and user-friendly way. The solution had to not only fulfill the expectations of our Information Directorate, but also fit in with the working practices of a Clinician working in the community."

Defining Requirements

The team was aware of the proven benefits of automated data capture, together with the associated increase in speed and efficiency. This led to an initial investigation of the market to identify key players and help in the process of defining project requirements. A formal evaluation and tender exercise followed. Prospective suppliers were measured against a range of key selection criteria:

- Product Functionality
- Compatibility with Trust's IT
- Infrastructure
- Supplier Confidence
- Competitiveness of Bid
- Quality of Support

"OCR for Forms™ provides a dual solution to our data input problems."

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Genisys, Formscan and OCR for Forms™ Offered a More Competitive Bid

Two prospective suppliers were confirmed as being able to provide the product functionality and compatibility required for the Community Nursing Forms application. Upon submission of final proposals, Genisys Technology, in conjunction with Formscan, was selected. Their proposal of Microsystems Technology's OCR for Forms™ proved to be more cost-effective and offered a range of training and on-going support services from within the Newcastle area. The contract was awarded to Genisys and Formscan in March 1997 to supply a complete data capture solution based around a high-speed Fujitsu scanning configuration, OCR for Forms software, and training and implementation services.

The Implementation Process

A phased implementation plan was drawn up between representative Clinicians and IT Directorate staff. As the largest of all Community Nursing services, District Nursing was nominated to take the lead in the implementation process. First the data, which the Nurses were looking to capture, was defined. Forms were then modified to take into account both the new information and the OCR for Forms design requirements. All information was condensed into two forms: an Initial Assessment/Registration Form and a Daily Visit Form. These forms were subsequently used as a design template for other Nursing services. The scanning configuration and software were installed on schedule. After training of IT staff in the use of OCR for Forms, a 3-

month pilot, phasing in all District Nursing, was started in January 1998.

Swift User Acceptance

With all District Nurses supplying their completed forms to the IT department on a daily basis, scanning and verification of forms could be carried out within one working day of receipt. User acceptance from District Nurses was swift. All other Community Nursing Services were added to the system immediately after the completion of the pilot in March 1998.

Operational and Business Benefits

Since starting to use OCR for Forms, processing time of forms has reduced from six to eight weeks to less than one working day. The data capture team has now been reduced by 50%, leaving one full-time operator and releasing another IT professional for more valuable activities. Clinicians now have access to up-to-date patient information and transcription accuracy from raw data is more accurate. As to when forms need modifying, data fields can be added and deleted quickly and easily using OCR for Forms.

Alison Thoburn commented on the success of the system within the Trust, "OCR for Forms provides a dual solution to our data input problems. The customized user-friendly design of the forms allows the Clinician to collect more clinically focused data in a less time consuming manner and the speed and efficiency of the system has greatly improved our input and validation processes."



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