

*THE HOMECARE
AND HOSPICE GUIDE
TO POINT-OF-CARE
TECHNOLOGY*

INTRODUCTION

Ironically, the Age of Information has created both a need and the means by which the need is fulfilled. As homecare and hospice caregivers experience the benefits of information technology – both to themselves and their patients – it is becoming an irreplaceable necessity.

As the worlds of homecare and hospice become more complicated, providers are seeing the older, established paradigms of care documentation quickly becoming a thing of the past. While providing high-quality patient care is still the priority of all caregivers, it is important that clinicians have access to the patient- and diagnosis-specific information that will make optimal care possible. This information must be continually updated and readily accessible to every member of the care team. Making information readily available to the entire care team is only possible with automated point-of-care (POC) documentation.

The use of POC technology in homecare and hospice has risen by 63 percent in the past five years, according to Homecare Automation Report (Feb. 2004). This increase can be largely attributed to the regulatory pressure placed on the industry. Advanced POC technology made it possible for homecare providers to meet the challenges of HCFA claim forms, electronic claim submission, OASIS and PPS¹.

These regulatory changes and the pressures to provide efficient, high-quality care have made automation at the point of care a necessity for most agencies. Paper-based documentation has become untenable in this environment. A recent study conducted by Outcome Concept Systems (OCS) found that, on average, skilled nursing visits in which POC technology is used take approximately four minutes longer to document than paper-based visits, and all disciplines using POC technology reported two- to six-minute longer visits.² In contrast, agencies without automated documentation have reported 48 minutes of paperwork for every hour of care, which doesn't include calls and travel time³. This suggests that by spending a few extra minutes *during* visits to document care using POC technology, clinicians can eliminate up to 48 minutes later doing the follow-up paperwork that would otherwise be required.

Most agencies implement POC technology for full-time nurses first and slowly implement the rest of the staff. But true clinical care and office efficiencies won't be recognized until the entire care team is automated⁴.

¹ Sblendorio, Suzanne. Remington Report, January/February, 2003. pp.38-41.

² Point-of-Care Report Raises Questions, and Eyebrows. Home Care Automation Report, August 2004. pp.8-9.

³ Rothwell, Kristin. Advances in Technology Revolutionizing Patient Care. www.nursezon.com. 2004.

⁴ "Expanding Point-of-Care Automation." Home Care Automation Report, February 2004. pp 4-7.

Access to and fluidity of information is the primary reason for providing point-of-care technology, and it brings with it a wide variety of benefits. Automating clinicians at the point of care:

- Provides greater standardization and consistency of care
- Enhances communication
- Improves efficiency
- Facilitates regulatory compliance
- Optimizes clinical resources
- Improves patient and caregiver satisfaction

Greater Standardization and Consistency of Care

The payors' expectations of care have created an atmosphere in which care coordination and delivery are significantly tighter than in the past. It's no longer acceptable to provide care based on traditions because "that's the way it's always been done." Non-evidence-based care allows for too much variability of care not only from one provider to the next, but even from one clinician to the next within the same agency. Today's environment demands that all care is based on prior evidence of positive outcomes. POC technology facilitates improved consistency through the implementation of standardized guidelines and care plans. Guidelines and care plans give the clinician a consistent map for care that can be individualized for each patient. Evidence-based care gives clinicians a scope of care from which they can choose the most appropriate care for the patient while ensuring payment for that care.

Enhanced Communication

Good communication and access to health information are at the heart of modern healthcare. Providing an integrated patient record and electronic visit documentation at the point of care ensures that vital, up-to-date patient information is available to each member of the care team. By having the complete historical chart available at the point of care, the clinician can view the patient's current condition in context and determine whether current results are an exception or part of an emerging trend. Improved communication in the form of access to the complete current and historical chart helps ensure the clinician makes the appropriate, patient-specific decisions and, therefore, the patient receives the care that is most beneficial⁵.

Improved Efficiency

Patient populations are growing exponentially even as the available pool of clinicians is shrinking, making efficiency one of the primary considerations facing homecare and

⁵ Phillips, Kelly. Technology Options Abound for Nurses. www.nursezone.com. 2004.

hospice providers. Implementing point-of-care solutions improves the efficiency of field staff by streamlining and standardizing workflow processes. It eliminates repetitive data entry of the patient's name and ID and automatically sends new order information to the appropriate places in the patient's electronic chart. By standardizing the documentation process, POC documentation allows clinicians to quickly record visit information.

Additionally, the clinician carries the entire medication database, including interactions and allergy information, as well as the agency procedure manual, electronically — improving decision-making and eliminating the need to carry bulky and quickly outdated books. The resulting efficiencies allow clinicians more time with more patients and less time dedicated to documentation.

Regulatory Compliance

The recent history of the homecare industry has been marked with unprecedented regulatory upheaval. POC solutions give clinicians the tools they need to meet these ever-changing regulatory challenges and maintain compliance. For example, POC solutions can validate and recognize inconsistencies at the time OASIS data is captured — significantly improving the accuracy of assessments, streamlining back-office auditing practices and reducing the number of trips to the office for the clinician. Additionally, POC solutions afford opportunities to control services rendered outside of the physician order of authorization by tying the services to the order or the authorization, significantly reducing costly non-billable services.

Improved Clinician and Patient Satisfaction

Automated POC systems improve the overall satisfaction of not only the clinician but also the patient. POC technology greatly reduces the overall documentation time for clinicians, reduces the number of trips they must make to the office and improves the clinician's confidence in communication with the other members of the care team. Patients are comforted by the fact that the clinician has more time to interact and listen to their needs.

MATCHING THE DOCUMENTATION DEVICE TO THE CLINICIAN

Once the decision to transition to automated POC technology has been made, the agency should examine its staff. Each member of the field staff has varying relationships with the homecare or hospice agency, and each discipline has different constraints and expectations in terms of documentation, the accessibility of information and hardware requirements. These variables make it essential that the agency match the appropriate documentation device to the clinician to realize maximum efficiency.

The agency must evaluate each employee and determine:

- Is the employee a professional or paraprofessional? RN, LPN, therapist, social worker or health aide?
- What is the employee's work status? Full-time, part-time or PRN?
- Is the individual an employee of the agency or a contracted employee?

Next, the agency should consider the responsibilities and level of accountability for each staff member. This includes the amount of flexibility in their work day and the amount of computing memory required to support certain tasks. *(See Figure 1 for typical assignments.)* These answers will help define the hardware and system needs of each clinician and simplify the evaluation process for devices. *(See Figure 2 for device comparisons.)*

FIGURE 1: TYPICAL AREAS OF AUTOMATION BY DISCIPLINE

DISCIPLINE	AUTOMATION
RN, PT, OT, ST	Intake, scheduling, assessments (OASIS and non-OASIS), medications, physician's orders, care planning, certifications and re-certifications, interdisciplinary case conferences, visit documentation
LPN/LVN, PTA, COTA	Assessments, medications, physician's orders, interdisciplinary case conferences, visit documentation
SOCIAL WORKERS	Assessments, physician's orders, interdisciplinary case conferences, community resource communication, visit documentation
AIDES	Care plans, visit documentation

Once the agency has defined and classified the needs of its employees, it can make a decision about the technology and hardware that will best serve them. Never before in the history of homecare and hospice have providers had so many device choices for POC systems: laptop and tablet computers, personal digital assistant (PDA), telephony and telehealth. Each device brings with it a wide range of functionality, benefits, considerations and costs.

LAPTOP AND TABLET COMPUTERS

The use of laptop and tablet computers has revolutionized visit documentation at the point of care. Laptops, or notebooks, and the smaller tablets are portable computers clinicians take into the home. They allow the clinician to download the patient's complete medical history, access medication databases and procedural guides, document the visit, and send the updated patient file to the integrated database at the agency office. Laptops take the static paper chart out of the homecare equation and replace it with the robust electronic medical record.

Introduced to the homecare industry more than a decade ago, laptops were the first electronic point-of-care documentation solution. By virtue of this fact, they are the most advanced. They have large memory capabilities that allow clinicians to carry a great deal of information on them and process information quickly. The homecare information software that is deployed on the laptops is often very powerful and provides robust functionality. Laptops provide large screens (often with touch-screen technology) and a full keyboard for text documentation.

The benefits experienced by clinicians using laptops at the point of care include improved:

- Quality of care
- Access to healthcare knowledge
- Decision support
- Communication between practitioners
- Organization of patient data
- Documentation workflow⁶

A well-designed laptop solution also exploits one of the strongest features of POC automation — the ability to electronically collate clinical information. This feature places clinical information in a logical sequence that makes it easy to assess not only the information that is provided but also what it missing. Consequently, it enhances record-keeping and increases the efficiency of handling information.

Who uses laptops and tablets?

Given the extent of functionality that laptops provide, they are often an agency's first choice for full-time, professional employees such as:

- Registered nurses
- Physical therapists
- Occupational therapists
- Speech therapists

Over the years, laptops and tablets have dropped dramatically in price, but they are still among the most expensive solutions available to homecare and hospice providers. For this reason, many healthcare providers are hesitant to implement POC technology on laptops to non-full-time or contract employees and instead use it on laptops with full-time, non-contract professional employees who work more than 20 hours a week.

Rolling out an automated system to only part of the clinical care team presents its own

⁶ Milholland, Kathleen D., PhD, RN. Information Systems Technologies: Rewards and Risks. ANA: ANA Nursing Risk Management Series II. www.nursingworld.org.

problems, however. If only a select few clinicians are using the automated system at the point of care, the agency sacrifices many of the benefits of automated POC documentation, such as an integrated electronic patient record, access to vital patient visit information, and elimination of duplicate data entry.

PERSONAL DIGITAL ASSISTANT

PDA's are small, hand-held electronic devices that allow clinicians to document visit information using either a touch-screen and stylus or an add-on keyboard. PDA's are newer to the homecare and hospice industries than laptops, but as the technology advances they are becoming increasingly prevalent because of their flexibility and relatively low expense. PDA's can help bridge the technological gap and prove to clinicians the value of automating documentation⁷.

As with its laptop counterpart, PDA's provide the benefits inherent in implementing an automated POC solution including streamlined workflow, improved quality of patient care, enhanced decision support and improved communication between members of the care team.

Historically, homecare and hospice administrators have been reluctant to provide automated POC solutions for part-time, contract or other employees who have a more tenuous connection to the agency. Furthermore, there has been far less commitment to equipping paraprofessional clinicians. Traditionally, there is a high turnover of these employees, and agencies have to face the very real possibility that costly hardware, such as laptops and tablets, might walk away with the employee⁸. This risk greatly outweighs the benefits of complete automation.

As discussed earlier, an agency will improve process efficiencies by automating part of its staff, but will derive maximum benefits when the entire staff is using automated POC documentation technology. PDA's provide the best solution for agencies that want complete automation but have resisted because they have a high population of non-full-time or contract employees and paraprofessional clinicians.

PDA's give clinicians of all disciplines and professional levels access to the electronic patient record. They provide much of the necessary functionality and access to information that comes with laptop POC systems at a fraction of the cost.

⁷ Phillips, Kelly. Nurses Take Technology into Their Own Hands. www.nursezone.com. 2003.

⁸ "Expanding Point-of-Care Automation." *Home Care Automation Report*, February 2004. pp 4-7.

Who uses PDAs?

The breadth of functionality available on PDAs accommodates any discipline, and because the hardware itself is so affordable, the agency can implement the full range of employees — professional and paraprofessional, full-time, part-time and even contract employees, including:

- Registered nurse
- Physical therapist
- Occupational therapist
- Speech therapist
- Medical social worker
- Social worker
- Clergy
- Bereavement counselor
- Licensed practical nurse
- Physical therapy aide
- Occupational therapy aide
- Home health aide
- Volunteers

PDAs help close the gaps in the electronic patient record that impede coordinated care and reduce the efficiency of clinicians in the field.

Training

Home healthcare information systems deployed on PDAs are by their nature more compact and streamlined in their approach to information presentation and chart navigation. They require minimal training time — often only a couple of days. This training time is in contrast to the average of two weeks for a laptop POC system. The reduced training requirement means less downtime for clinicians learning the system and, therefore, faster return on investment for the homecare or hospice agency.

TELEPHONY

Telephony technology, as the name implies, uses the telephone as a documentation device. Clinicians place a call, which connects to the agency's integrated information system. Using the touch-tone dialing buttons, clinicians enter simple visit information directly into the database for immediate patient chart updates and billing.

Telephony's many benefits include requiring no hardware at all for the field clinician. Field staff of any discipline use a touch-tone phone to document tasks in standardized numerical format, which helps ensure accuracy and track employee utilization. Additionally, telephony helps agencies maintain HIPAA confidentiality by eliminating written notes and allowing field clinicians to document directly into the patient database.

Telephony POC systems eliminate paper documentation and make information available to the entire care team, reduce manual documentation, improve care monitoring and streamline the billing process.

Who uses Telephony?

Agencies should be aware of the limitations of telephony technology, however. Because it is tied to the telephone and numerical data entry, data documentation is restricted to a menu of possible choices. The agency can prepare for any situation, but it is essentially a static one-way system, making it more practical for the paraprofessionals who require less detailed documentation functionality, including:

- Home health aides
- Volunteers
- Pastoral care

Training

Telephony POC systems are very simple to learn. Because telephony technology is constrained by the numerical dialing system of the telephone, it functions exclusively on a menu system. This makes education and training simple — often requiring only a couple of hours for staff to master.

TELEHEALTH

Telehealth is unique in the world of automated POC documentation because it is designed for use by the patient, not the clinician. The patient documents his vital signs and symptoms from the home without the intervention of a clinician. Using an in-home communication device, the patient enters vital sign information, such as blood pressure, weight or blood sugar levels, and transmits it over a telephone line to the health provider. This information is then evaluated by a clinician who monitors the patient's health over time. More advanced telehealth systems provide two-way communication between the patient and the healthcare provider, allowing the patient to answer diagnosis-specific questions, which help the agency understand the patient's overall mental, physical and cognitive well-being.

The use of telehealth is just beginning to affect homecare and hospice. It has been held back until recently by the lack of financial reimbursement, but with the implementation of PPS under Medicare, telehealth visits can now be covered when the service is included in the doctor's orders⁹.

Telehealth POC technology improves patient care by collecting vital patient information daily and eliminating gaps in patient monitoring. The standard in-home visit routine rarely includes daily visits to the patient's home. Also, by involving the patient in his own care, telehealth POC monitoring makes the patient a part of the care process, providing a sense of involvement and empowerment to the patient, which translates into high patient satisfaction.

It has been shown that implementation of a telehealth system can dramatically improve the overall health and outcomes of patients using the system. The Veterans Health Administration Community Care Coordination Service implemented telehealth for a population of 791 veterans made up of elderly, high-risk patients suffering from hypertension, heart failure, chronic obstructive pulmonary disease (COPD) and diabetes. Studying the results over a year, the VA found:

- 40 percent reduction in emergency room visits
- 63 percent reduction in hospital admissions
- 64 percent reduction in nursing home visits
- Significant improvement in patients' perception of quality of life¹⁰

Over the past decade, the number of healthcare clinicians has steadily declined while the number of patients being referred to homecare and hospice agencies has increased. Telehealth POC technology helps agencies meet these conflicting demands by allowing a single clinician to oversee the care of a large group of patients efficiently, saving the agency human resources, time and money without sacrificing high quality care. This technology format also positively affects employee satisfaction. Care coordinators working with telehealth systems reported that they had greater access to current information and had strong support for the system and its results:

- 90 percent said the system provided timely, appropriate information.
- 92 percent believed the program was beneficial.
- 95 percent would refer patients to the program.¹¹

By monitoring the patient's condition every day, the clinician is able to trend the collected data over time and identify changes in the patient's health compared to an established baseline. Daily monitoring allows the clinicians to tailor care to meet the patient's day-to-day needs and helps avoid emergency situations and costly in-patient stays.

⁹ Tweed, Stephen C. *Home Healthcare Nurse*, October, 2003. pp. 647-650.

¹⁰ *Disease Management*, Volume 5, Number 2, 2002.

¹¹ *Telemedicine Journal and e-Health*, Volume 9, Number 1, 2003.

Training

Most telehealth devices are intuitive and easy to learn, requiring minimal training (two to four hours) before the patient is able to master the system (one to two weeks).

FIGURE 2: POINT OF CARE HARDWARE COMPARISON

	<i>LAPTOP/TABLET</i>	<i>PDA</i>	<i>TELEPHONY</i>	<i>TELEHEALTH</i>
Hardware cost	\$1,500-\$2,100	\$500-\$700	Free using patient's telephone	\$1,000
Weight	4 lbs.	5 oz.	5 oz.	1 lb.
Durability	Good	Very good	Excellent	Very good
Lifetime	3 years	2-3 years	3-5 years	5 years
Screen size	12"-14"	3.5"	N/A	5"
Keyboard size/keypad	12"	3" (add-on)	N/A	4"
Training time	2 weeks	1 day	2 hours	15 minutes
Discipline	RN, PT, OT	RN, PT, OT, ST, LPN, PTA, OTA, MSW, BSW	HHA and other ancillary: i.e. volunteers, pastoral care	N/A
Employment status	FT	FT, PT, IC, PRN	FT, PT, IC, PRN	N/A

CONCLUSION

The success of any new POC information system implementation depends on how ready the agency is for the implementation. It is essential that the agency does the necessary research not only about the different implementation methods but about its documentation needs for each discipline and clinician as well as its willingness to invest in the solution.

ADDITIONAL SOURCES

“Case Study: Catholic Healthcare West CHF Program Shows Cost Savings and High Patient Satisfaction with Health Buddy and Health Hero iCare Desktop.” CHW Mercy Healthcare, Sacramento, CA. Health Hero Decision Support Services. February 2001.

ITAA E-Health Committee. Information Technology Association of America. “Chronic Care Improvement: How Medicare Transformation Can Save Lives, Save Money and Stimulate an Emerging Technology Industry.” www.ita.org. May 2004.

McKESSON

Empowering Healthcare

McKesson Provider Technologies

5995 Windward Parkway

Alpharetta, GA 30005

<http://infosolutions.mckesson.com>

1.800.981.8601

Copyright © 2004 McKesson Corporation and/or one of its subsidiaries. All rights reserved. All product or company names mentioned may be trademarks, service marks or registered trademarks of their respective companies.

WHT179-12/04