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The LeadingAge Center for Aging Services Technologies (CAST) is focused on accelerating the development, evaluation and adoption of emerging technologies that will transform the aging experience. As an international coalition of more than 400 technology companies, aging-services organizations, businesses, research universities and government representatives, CAST works under the auspices of LeadingAge, an association of 6,000 not-for-profit organizations dedicated to expanding the world of possibilities for aging.

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## Person Directed eMAR Use: Conversion of Traditional Medication Administration to Liberalized Medication Administration

### *Category*

Quality of Life/Satisfaction with Care

Staff Efficiencies

### *Organization Name*

The Francis E. Parker Memorial Home, Inc. ("Parker")

### *Organization Type*

The Parker System includes four Skilled Nursing Facilities, an Assisted Living Facility, Medical and Social Adult Day Care Programs, Post-Acute Rehabilitation Services, Outpatient Rehabilitation Services, and Health and Wellness Programs.

### *Other Partners*

Answers On Demand (AOD), now part of MatrixCare

Dr. David Howarth, Medical Director

Pharmcare USA, Prescribers Connection

RASA Pharmacy Consultant Group

### *Organization Description*

Founded in 1907 Parker is based on the belief that people should be able to live in a home-like environment with the ultimate in personalized, affordable high-quality long-term care services. Guided by the principles of the Eden Alternative® person-directed philosophy of care, Parker offers a continuum of services, providing social, emotional, medical, and physical support to empower personal choice for our older adult residents. Parker is committed to creating and maintaining an environment that enhances the lives of our residents and their families, our employees, and our community.

### *Project Description*

In support of Parker's person-centered care approach, an opportunity was identified to empower and engage residents through a liberalized medication administration program. The decision to migrate from a

traditional time-stamped medication administration policy to a liberalized medication administration policy\* allows medications to be administered in a safe and timely manner but in a way that corresponds with residents' daily activities and more normal home-like schedules. Residents receive medication(s) at their preferred time, enabling them to retain control of their own wake and sleep hours, encouraging independence and enhancing quality of life.

### System Type

Parker's clinical software provider, AOD, provided the Physician Orders and Electronic Medication Administration Record/Treatment Administration Record (eMAR/eTAR) module allowing nurses and physicians to create and send orders electronically to the pharmacy. Physicians also have capability to electronically e-sign interim and monthly orders. This provides real-time updates to each resident's electronic medication and treatment administration records (eMAR/eTAR). Clinicians have remote access to eMAR/eTAR updates on the system and a twice-daily scheduled eMAR/eTAR pdf backup on a secured server provides resilience in the event of any scheduled or unscheduled system downtime.

Prescribers connection is the nation's largest long term care focused ePrescribing Network, with a comprehensive network connecting long-term care facilities, physicians, and pharmacies. Prescribers Connection is used as an interface between Parker's software, AOD, and pharmacy, Pharmcare USA.

### System Embodiment

The AOD Physicians Orders eMAR/eTAR feature allows for electronic data entry and management for the administration of medications and treatments. The program can be set up to administer medications and/or treatments according to physician's orders. Parker Home implemented a bi-directional connection hub to the pharmacy through Prescribers connection that allows the pharmacy to seamlessly access data without having to contact Parker staff directly. The pharmacy can access information such as census data, and review medications for patient diagnosis through read-only access to AOD, ensuring that residents' electronic protected health information (PHI) records remain secure from any external data manipulation or corruption. The bi-directional interface between AOD, Prescribers Connection, and Pharmcare USA allows messages to be sent between the three systems for refilling of medication and therapeutic substitution, facilitating order changes, and seamless updates of census and patient diagnosis data.

*See diagram below describing the ePrescribing messages flow in and out of Prescribers Connection.*

*Source: Pharmcare USA IT Department*



\* Morning medications can be administered from 6:00 a.m. to 11:00 a.m.; noon medications from 12:00 p.m. to 4:00 p.m.; Afternoon medications from 4:00 p.m. to 7:00 p.m. and hours of sleep from 8:00 p.m. – 11:00 p.m. There are some exceptions to this policy to facilitate best medication treatment outcomes as recommended by physicians.

## Business Model

Parker, a not-for-profit organization, offers the highest quality long-term care services at subsidized rates. Parker accepts private pay, private health insurance, and Medicaid (dependent on location).

## Implementation Approach

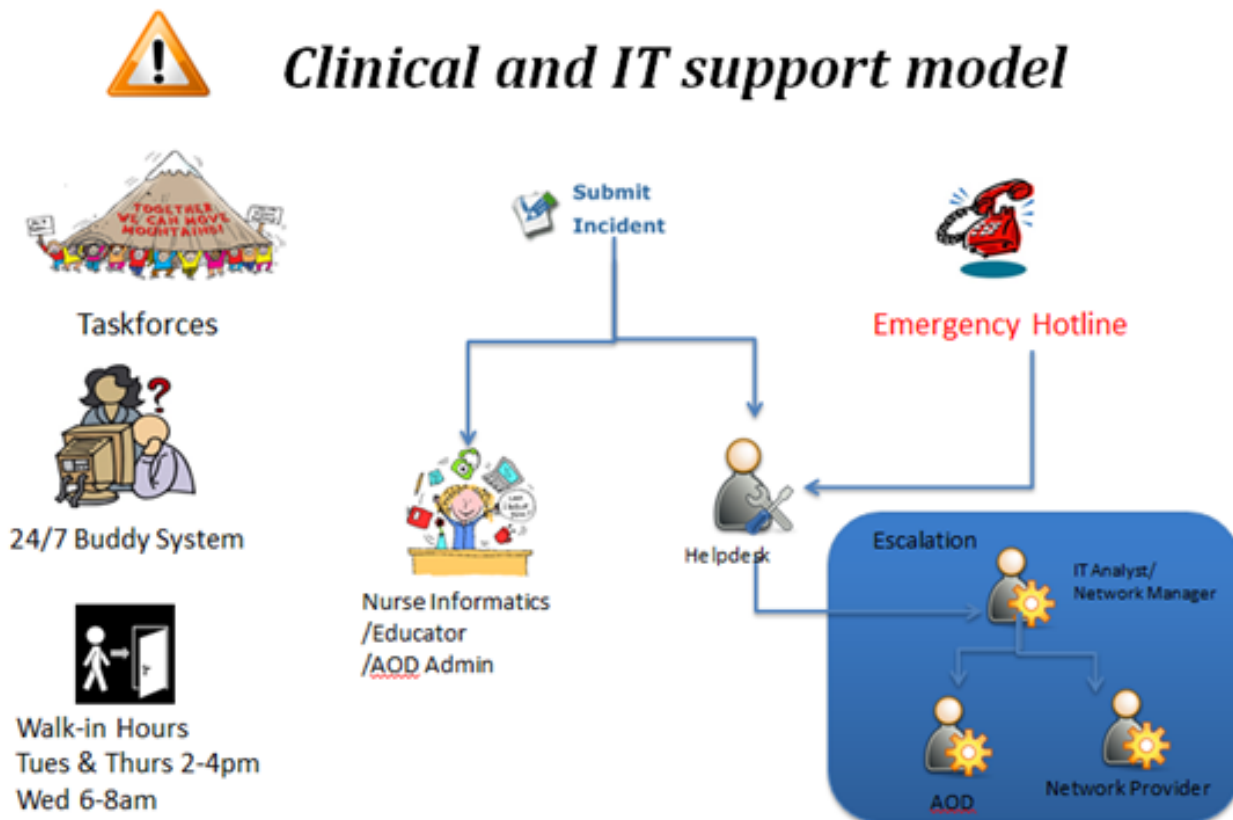
Parker's electronic Liberalized Medication Administration program was launched in November 2015 with the Assisted Living Residence selected to "Go Live" first, with 36 resident records to reconcile and seven nurses to be trained. The process was a simple behind the scenes conversion performed by AOD and no additional reconciliation was necessary to implement this project. All medication administered timestamps were changed to those outlined in our Liberalized Medication Administration policy.

Training was a priority and role-centric task forces were created. A Champion/Buddy system was used, with three nurses, one representing each shift, selected as Champions who received a three-day core training from an AOD specialist. Each Champion was assigned a Buddy (another nurse on the same shift) to train and support

through the three-month implementation process.

Physician buy-in was vital and support was gained from the Medical Director prior to implementation. A Physicians Task Force provided an opportunity for review and input on development of electronic forms for use within the AOD system. Parker's Informatics Educator/IT Clinical Specialist provided initial training and ongoing user support for physicians. Parker also created and published an AOD Physician Binder that includes information and resources for system use and work flow, including remote desktop instructions, navigation tools, and writing and e-signing orders guidelines.

Parker IT staff worked in tandem with AOD team specialists throughout project implementation and supplied and supported infrastructure and equipment needs. The nursing department coordinated staff schedules to allow availability for training and coverage and senior nurses were selected to manage and review medication schedules for compliance. Administrative staff provided clerical support during reviews and training exercises. Pharmacy provided ongoing trash runs and the Pharmacist Consultant worked with the Parker team throughout implementation to ensure compliance with state regulations.



Source: Pharmcare USA IT Department

## Advantages to the Approach

- Roles and expectations were clearly defined and staff received extensive training before Go Live, with continued training as needed.
- Clinical staff had proper coverage to attend all training sessions.
- Clinical staff had several layers of support provided by Buddy partners, IT Helpdesk Specialists, Informatics Educator, I.T. Applications Analyst and EHR vendor support.
- 1:1 support was provided via walk-in hours during the normal business day and after-hours support (including weekends and holidays) from an external Helpdesk vendor.
- Parker's Staff Informatics Educator/IT Clinical Specialist provided super-user level on-site support.

*The Clinical and IT support Model is illustrated in the diagram below.*

## Outcomes

- Parker's conversion to a liberalized Medication Administration System empowers resident older adults to make their own decisions regarding when to take their medication. As a result, there has been an overall improvement in person-centered Quality of Care and resident satisfaction.
- Through the Physician Orders eMAR/eTAR and Prescribers' connection hub interface, residents' medications are ordered on-time and securely by nursing staff. This has resulted in significant quality assurance process improvements (QAPI) and reduced medication errors as compared to traditional paper methods.
- Parker physicians electronically e-sign Physician Orders with ease instead of using redundant manual procedures that are labor intensive and time consuming, while maintaining an accurate electronic audit trail for each resident in AOD. Pre-implementation review and signing of orders took approximately four hours and post-implementation time was reduced to 30-45 minutes.
- Pharmcare USA staff benefit from having read-only access to resident PHI records, enabling them to make medication substitutions, refill and change orders in real-time at the point of dispensing.
- Improved efficiency as nurses now complete notes with their med pass.

## Challenges and Pitfalls to Avoid

- One of the most critical aspects of implementation was to streamline and maximize user adoption. Clinical staff were very comfortable using a paper-based traditional medication administration and reluctant to migrate to a Liberalized Medication Administration. To maximize user adoption, Parker took the following steps:
  - We overcame this barrier by systematic planning and scheduling of small group "role-centered" training sessions that addressed all classifications of clinical staff.
  - We adopted a site-wide process of continuous training, not a one-time only training approach. Training was prioritized, with managers facilitating coverage to support attendance at on-going training sessions while ensuring care and service for residents was not compromised.
  - By using the Champion/Buddy process, with one nurse from each shift assigned to other employees as their buddies, this allowed education to reach all nurses in a 1:1 format. It allowed for personalized training and support and staff were more comfortable asking questions in an individualized setting.
  - Parker developed an implementation strategy for eMAR/eTAR and Physician Orders that allows flexibility to facilitate any changes in the ordering process as needed across our varied campuses.
  - Ongoing communication between Parker and Pharmcare USA Pharmacy was critical prior to implementation and after go-live when the system was up and running.

## Lessons Learned

- The Clinical Management Team must fully support the project and positively reinforce the benefits of the electronic system over the traditional paper-based system.
- Timing is everything! Summer months may not be the best time to implement major projects due to increased staff time off.
- Continuous role-centered training should be focused on small groups and supported by the on-site champions as needed in one-on-one sessions. In addition:

- o Training must be prioritized by Management and on a continual basis as system processes change and future enhancements are implemented.
- o Management must provide staff with adequate coverage to attend ongoing training sessions.
- o Physicians must buy-into the project and be adequately trained on how to use the system.

### *Advice to Share with Others*

- Parker's Staff Informatics Educator/IT Clinical Specialist provided super-user level support onsite to all staff members, providing exceptional levels of end-user training and assistance. Whether a dedicated position, or an expansion of an existing one, this role was instrumental in the success of the project.
- Be sure to confirm with your software provider the option to modify electronic medication administration frequency codes according to your organization's determined schedule.
- Create an organization-wide implementation plan that allows enough lead time to thoroughly test the system and train users before the Go-Live Date.
- Consider all budget ramifications, including software, certification program, training, and staff support.
- Do not allow your software vendor to dictate the Go-Live Date.
- Get buy-in from senior clinical and management staff early.
- Define clear expectations for all vendors and staff involved.
- Ensure support is available to cover all shifts, including nights and weekends.
- Continuous training is required in order to maintain a successful system.
- Keep training sessions role-specific and tailored toward the end-users needs.
- Policies must be developed and followed to support ongoing compliance.