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***Regular Reads** is a supplement of **mosAIC**, the Agency for Integrated Care's publication for the Community Care sector. Filled with information such as programmes, good practices, book and journal summaries as well as stories from the sector, **mosAIC** is available free for Community Care staff. For more information, visit <http://www.aic.sg/mosaic>



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mosAIC's Regular Reads aims to give relevant, useful information to Community Care partners for the improvement of their operations. This section features journal articles that highlight latest research findings as well as good, evidence-based and innovative practices. While the articles aim to keep Community Care partners informed of current developments in the sector, the views and opinions expressed or implied do not necessarily reflect those of AIC, its directors or editorial staff.

» New exchange technologies promise safer transitions to long-term care facilities

Long-term care faces many challenges in providing personalised care: fragmented information; poor transitions of care across care facilities; poor communication between patients and their providers; scarce resources; and limited staff time. PCCI, a non-profit research and development corporation in Dallas has been granted up to US\$12 million to build the Dallas Information Exchange Portal (IEP). It is an artificially intelligent social health information exchange between healthcare and social service providers, and plans to address the challenges of fragmented patient records and poor transitions of care. IEP will provide secure access to relevant patient information that will enable care providers to reach across sectors to address risk factors such as homelessness, poverty, food assistance, mental health, chronic disease, mobility and ageing.

Nguyen, N. (2014, May 29). New exchange technologies promise safer transitions to long-term care facilities. McKnight's. Retrieved July 4, 2014.

Search for the full-text article at www.mcknights.com

» MIND the app! Free iPad tool created for people with neurological disorders and their caregivers

GE Healthcare has designed a free iPad app, MIND the app, to provide mobile support for those affected by neurological disorders. It provides brain stimulation for people with neurological disorders such as Alzheimer's disease, Parkinson's disease, essential tremors, stroke and traumatic brain injury. Through music and art, users can engage in activities at an emotional and physical level leading to a stimulating and fun experience. Patients can play their favourite songs, sing along to them, create their own music and dance steps, watch music videos and enjoy music from different countries. They can observe great works of art and create their own version of masterpieces. This can help them stimulate their brain, trigger emotional responses and promote social interaction. The app also provides helpful advice for caregivers.

MIND the app! Free iPad tool created for people with neurological disorders and their caregivers. (2014, March 10). GE Healthcare. Retrieved 1 April 2015.

Search for the full-text article at <http://newsroom.gehealthcare.com>

» Avatar 'could care for elderly' in future, claim researchers

The University of Kent is taking a lead role in a project to support UK's ageing population. It has won a share of £2.4 million in funding from the Technology Strategy Board for its project, Responsive InTeractive Advocate (RITA). It is developing an intelligent avatar that would detect whether people are in pain and alert the emergency services. The avatar could appear as a figure on a television screen, a tablet computer or as a hologram. It would be able to monitor heart rate and blood pressure, remind people to take their medication and know if someone has fallen over or was in pain. It would be able to analyse the person's speech, movement and facial expression to detect their mood and respond accordingly.



The Press Association. (2014, March 4). Avatar 'could care for elderly' in future, claim researchers. Nursing Times. Retrieved 1 April 2015.

Search for the full-text article at www.nursingtimes.net

» 'Electronic diaper' can change aged care

This article highlights that Australian medical device firm, Simavita, has developed a small electronic sensor that can be placed on an aged care resident's incontinence pad to detect urinary discharge. The data from the sensor can be analysed using a special computer software enabling the carers to develop an accurate "live bladder chart" of the resident's continence. The chart can help determine what makes the resident want to discharge urine such as positional change of being lifted up from a chair. This can help reduce the unpleasantness of incontinence management as well as make it less expensive.

Chappell, T. (2013, December 3). 'Electronic diaper' can change aged care. The Australian. Retrieved January 2, 2014.

Search for the full-text article at www.theaustralian.com.au

» EarlySense announces patient rest indicator for better patient supervision at night

EarlySense unveiled that several new features to its EarlySense system will be introduced in January 2014. One significant feature is a Patient Rest Indicator which will give caregivers indication of a patient's level of rest and motion while in bed. This will become an important indication for when patients are preparing to get out of bed during the night as opposed to existing solutions that alarm the carers only after the patient has left the bed. Clinical teams can then be proactive in reaching the patient's bedside before any risky situation develops.

EarlySense announces patient rest indicator for better patient supervision at night. (2013, December 5). EarlySense. Retrieved January 2, 2014.

Search for the full-text article at www.earlysense.com

» Mobile IT in LTC: Insights from experts

This article is a compilation of the thoughts of nine industry leaders in health information technology on mobile solutions and industry trends that were discussed at the Long-Term and Post-Acute Care HIT Summit. It highlights trends in bring your own device (BYOD) such as mobile phones and iPads. The Part 2 report looks at training staff to use technology to assist them in their job; having IT security; having business continuity plans in the event that the wireless goes down; and future predictions of mobile in long-term care.

Cook, R. (2013, September 19). Mobile IT in LTC: Insights from experts. McKnight's. Retrieved October 2, 2013.

Search for the full-text article at www.mcknights.com

» Using information and communication technology in home care for communication between patients, family members, and healthcare professionals: A systematic review

This report reviews existing studies on the use of ICT in home care for communication between patients, family member and healthcare professionals. It found that three applications were most prominently used in ICT in homecare: video technology, text

messages and health monitoring. ICT was used mostly for communication between patients and nurses or other healthcare professionals. Patients and healthcare professionals had a positive experience using ICT applications to communicate especially in follow-up care of patients at home and improved accessibility. ICT could however not replace face-to-face encounters but only complement them.

Lindberg, B., Nilsson, C., Zotterman, D., Soderberg, S., & Skar, L. (2013, February 3). Using information and communication technology in home care for communication between patients, family members, and healthcare professionals: A systematic review. *International Journal of Telemedicine and Applications*. Retrieved October 2, 2013.

Search for the full-text article at www.hindawi.com

» Evaluation of a computer-assisted errorless learning-based memory training program for patients with early Alzheimer's disease in Hong Kong: A pilot study

This study aimed to implement a computerised errorless learning-based memory training programme (CELP) for people with early Alzheimer's disease in Hong Kong. It compares training outcomes of CELP group with those of a therapist-led errorless learning programme (TELP) group and a waiting-list control group. It found positive treatment effects on cognition for computer-assisted and therapist-led learning-based memory group. The CELP subjects showed positive changes in their cognitive functioning while the TELP group in their emotional/daily functioning.

Lee, G., Yip, C., Yu, E., & Man, D. (2013, June 7). Evaluation of a computer-assisted errorless learning-based memory training program for patients with early Alzheimer's disease in Hong Kong: A pilot study. *Clinical Interventions in Aging*. Retrieved October 2, 2013.

Search for the full-text article at www.ncbi.nlm.nih.gov

» Adoption and use of electronic health records and mobile technology by home health and hospice care agencies

This report provides national estimates on the adoption and use of electronic health records and mobile technology by home health and hospice care agencies. It explores the characteristics of the agencies that have adopted technology. These estimates are based on data obtained in 2007 from the National Home and Hospice Care Survey carried out that year. It showed that 28 per cent of home health and hospice care agencies adopted electronic health records and mobile technology in 2007 while 54 per cent did not do so. In addition, the adoption of both technologies is dependent on the number of patients served and type of agency. Other findings included the fact that the agencies that adopted mobile technology chose functionalities for the Outcome and Assessment Information Set (OASIS), e-mail and appointment scheduling.

Bercovitz, A. R., Park-Lee, E., & Jamoom, E. (2013, May). Adoption and use of electronic health records and mobile technology by home health and hospice care agencies. *National Health Statistics Report*. 66. Retrieved August 22, 2013.

Search for the full-text article at www.cdc.gov

» Facilitating out-of-home caregiving through health information technology: Survey of informal caregivers' current practices, interests, and perceived barriers

Many patients with chronic conditions are supported by informal caregivers such as family members, friends and other

individuals. This report seeks to understand caregiver's use of, interest in and perceived barriers to health information technology for out-of-home caregiving. It found that the likelihood of a caregiver using technology increased significantly when they carried out a higher number of caregiving activities. The mismatch between caregivers' interest in and use of technology can be addressed by healthcare systems through the modification of privacy policies that hinder information exchange.

Zulman, D., Piette, J., Jenchura, E., Asch, S., & Rosland, A. (2013, July). Facilitating out-of-home caregiving through health information technology: Survey of informal caregivers' current practices, interests, and perceived barriers. *Journal of Medical Internet Research*. 15(7). Retrieved August 22, 2013.

Search for the full-text article at www.jmir.org

» Flex bathing for all

Bathing nursing residents is one of the most difficult aspects of caregiving for staff and can be difficult on residents, especially those with dementia. This article highlights that by designing bathrooms that are adaptable enough to serve different residents through the years and by putting more of the decision-making about the experience in the individual resident's hands, it can be a enjoyable process for all involved. The designs can include barrier-free showers that help maintain independence; side or front-entry or height-adjustable bathtubs; lift systems for the tubs; uniform maintenance and service training to the caregiver staff; and bathing trolley. The bathing environment should be made appealing. The residents should be allowed to make decisions on how (bath or shower), when (morning or evening) and how often they get cleaned.

Novotney, A. (2013, May 1). Flex bathing for all. *McKnight's*. Retrieved May 2, 2013.

Search for the full-text article at www.mcknights.com

» Health IT in long-term and post acute care

This report examines how long-term and post-acute care providers can use health information technology to improve care delivery and health outcomes while reducing the total cost of care. It explains the issue; provides background information on the current landscape of health IT in the sector, the challenges and opportunities to improve care coordination and outcomes; examples of patient-centered care using health IT tools; health care transformation programmes; and key considerations on using health IT.

Health IT in long-term and post acute care. (2013, March 15). The Office of the National Coordinator for Health Information Technology. Retrieved May 2, 2013.

Search for the full-text article at www.healthit.gov

» Japan pushing for low-cost nursing home robots to care for elderly

This article highlights that the Japanese Government is providing financial assistance to companies to develop low-cost nursing home robots that cost around 100,000 yen (US\$1,022) which can be easily commercialised. There are four major kinds of robots included in the development plan: a motorised robot that can assist in lifting or moving non-ambulant elderly people so that caretakers do not need to exert as much physical strength; an ambulatory robot that can assist the elderly to walk by themselves, even on inclined surfaces; a portable, self-cleaning robotic toilet that can be placed strategically to make using the toilet easier for the elderly; and a monitoring robot that can track the whereabouts of dementia patients who usually wander about and get lost.



Hofilena, J. (2013, April 29). Japan pushing for low-cost nursing home robots to care for elderly. The Japan Daily Press. Retrieved May 2, 2013.

Search for the full-text article at <http://japandailynews.com>

» Hospice of Michigan develops mobile app for end-of-life care

The hospice of Michigan (HOM) is providing its patients and their family members with a free mobile app that will help them stay connected with the teams caring for their loved ones. Since 50 per cent of persons do not live near enough to their ailing family member, this app hopes to close the distance so that they can stay connected. When their relative receives a visit, they can see a picture and read a short profile of the HOM team member making the visit; understand the role of the team member – medical, spiritual, social work, volunteer or another type of support; and see the date and duration of the visit.

Dewey, C. (2013, February 20). Hospice of Michigan develops mobile app for end-of-life care. Grand Rapids Business Journal. Retrieved March 11, 2013.

Search for the full-text article at www.grbj.com

» The robot will see you now

Watson, the robot created by IBM, is now learning to make diagnosis and treatment recommendations by ploughing through cases histories at Memorial Sloan-Kettering. This is part of a series of technological developments which suggest that technology could drastically change healthcare the same way it changed many other industries. In this regard, this article looks at how technology can transform healthcare in future. In addition, it looks at the potential impact on a range of issues such as the role of physicians as well as job creation.

Cohn, J. (2013, March). The robot will see you now. The Atlantic. Retrieved March 11, 2013.

Search for the full-text article at www.theatlantic.com

» What design features do LTC residents most want?

This article highlights some design changes that matter most to long-term care residents. Within the room, they include providing remote controls to residents to adjust the room temperature; larger remote controls for televisions; user-friendly phones that are less complicated; and having elders in a wheelchair test potential redesigns for easy navigation. Outside the room, they include signs to point residents in the right direction; user-friendly access to the outdoors; breathing room; and accessible nursing stations.

Barbera, E. (2013, February 25). What design features do LTC residents most want? Long-Term Living Magazine. Retrieved March 11, 2013.

Search for the full-text article at www.ltlmagazine.com

» Computer templates in chronic disease management: Ethnographic case study in general practice

This study investigated how electronic templates shape, enable and constrain consultations about chronic diseases. The data showed that the focus on what is measurable and recordable in templates, and designed to assure certain standards of



“quality” care can lead to a bureaucratisation of care and may serve to marginalise those aspects of “quality” practice which lie beyond their focus, and which do not lend themselves to “data capture”. The researchers suggest that in educating for chronic disease management, it is essential to incorporate a greater recognition of the way in which clinicians integrate the electronic patient record and to regard this as an integral aspect of the consultation.

Swinglehurst, D., Greenhalgh, T., & Roberts, C. (2012, November 28). Computer templates in chronic disease management: ethnographic case study in general practice. *BMJ Open*. Retrieved January 2, 2013.

Search for the full-text article at <http://bmjopen.bmj.com>

» Mobile technology for an active and independent life

This article argues that even though the deployment of mobile health or mHealth technology can help older people, very few real and viable solutions have arisen that are economically feasible while truly addressing the needs of the ageing population. Much of the technology is complicated to learn and use, and a simple interface is especially important in the case of older people who may be somewhat resistant to new products. One of the solutions is the process called co-creation which integrates users into the development process. The most popular form of co-creation is the online idea contest where end users are asked to present their ideas, and members of the online community discuss the solutions or give suggestions.

Wippich, F., & Schaumberger, K. (2012, Fall). Mobile technology for an active and independent life. *AARP International*. Retrieved November 6, 2012.

Search for the full-text article at <http://journal.aarpinternational.org>

Under “Explore by Topic”, select “Health” > Select page 2 (fourth article)

» Need technology? Take the trauma out of your IT initiatives

This article holds that all Information Technology (IT) initiatives require deep planning and frequent involvement of clinical staff and administration to ensure that technology will meld with the corporate mission and the clinical workflow of the long-term care setting. It recommends five strategies to implement successful IT initiatives: survey first and often; gather everything on the discussion table, then prioritise; keep project scope to what can reasonably be done within two to five years; implement all IT projects in phases; and be realistic about upgrades, especially for software versions.

Tabar, P. (2012, October 24). Need technology? Take the trauma out of your IT initiatives. *Long-term Living Magazine*. Retrieved November 6, 2012.

Search for the full-text article at www.ltlmagazine.com

» Environmental sustainability by design for assisted living

This article describes the energy efficient and environmentally sustainable 90-unit Brightview South River assisted living community developed by The Shelter Group in the United States. The design incorporates features such as native and adaptive plantings, green or ‘living’ roofs, natural light, low-emitting materials throughout the interior of the building, Energy Star appliances that uses 15 to 50 per cent less energy compared to other appliances, low-flow plumbing fixtures, recycling collection and storage areas, solar-powered waste compactor, and electric vehicle charging stations, among others. While being environmentally friendly, it also aims to meet its overarching goal of meeting diverse and evolving LTC needs of residents and providing them with a vibrant living experience.



Shonaiya, C. (2012, July 2). Environmental sustainability by design for assisted living. Long-term Living Magazine. Retrieved September 7, 2012.

Search for the full text article at www.ltlmagazine.com

» **Messaging system enables nursing home residents to e-mail loved ones without a computer, leading to enhanced quality of life**

This article describes an innovative messaging system that was developed for nursing home residents to keep in touch with their family and friends. At the Good Samaritan Society, a nursing home in Tyndall, United States, residents receive printouts of incoming e-mails. They respond by writing handwritten notes that are placed in a modified scanner by the staff. A push button automatically creates a digitised version and is emailed to the intended recipients. Though a quantitative study has not been conducted, anecdotal evidence suggests that enabling easier communication with the outside world has enhanced the residents' quality of life.

Good Samaritan Society. (2012, August 15). Messaging system enables nursing home residents to e-mail loved ones without a computer, leading to enhanced quality of life. Agency for Healthcare Research and Quality. Retrieved September 7, 2012.

Search for the full text article at <https://innovations.ahrq.gov>

» **A review of wearable sensors and systems with application in rehabilitation**

This paper highlights wearable sensors and systems technology related to the field of rehabilitation that is currently undergoing assessment. It provides a short description of key enabling technologies such as sensor technology, communication technology and data analysis techniques, followed by a detailed description of major areas of application of wearable technology. The paper focuses on applications in the area of health and wellness, safety, home rehabilitation, assessment of treatment efficacy and early detection of disorders. It looks at the use of these sensors in home monitoring of older adults and patients with chronic conditions.

Patel, S., Park, H., Bonato, P., Chan, L., & Rodgers, M. (2012). A review of wearable sensors and systems with application in rehabilitation. Journal of NeuroEngineering and Rehabilitation. Retrieved July 6, 2012.

Search for the full text article at www.ncbi.nlm.nih.gov/pubmed

» **A roadmap for health IT in long-term and post-acute care (LTAC)**

This document presents a roadmap on priorities for implementing health information technology (IT) at nursing homes and rehabilitation centres in the United States for 2012 through 2014. The priorities include: Accelerating caregiver and consumer engagement in healthcare; conducting quality measurement and improvement activities to boost care quality and processes; emphasising health IT as a business strategy; promoting the development of technology skills for members of the long-term and post-acute care (LTAC) workforce; and using health IT to coordinate care among physicians, hospitals, and LTAC providers.

Long-Term and Post-Acute Health IT Collaborative. (2012, June). A roadmap for health IT in long-term and post-acute care (LTAC). Retrieved July 4, 2012.

Search for the full text article at www.ltpachealthit.org

Select "Road Map" under "Main Menu"



» What can e-learning offer geriatric medicine in the UK?

The expansion of e-learning in medical education is a reflection of the inherent advantages that technology can bring to teaching and learning. Geriatric medicine has taken advantage of some of the benefits associated with e-learning. However, there are further opportunities and challenges to be met for geriatric medicine to make the very most of e-learning. This review outlines the terminology associated with e-learning; summarises the advantages and potential problems; and considers the evidence base for the efficacy of e-learning. Current use of e-learning amongst professional groups is summarised and recommendations are made for expanding the use of e-learning for all healthcare professionals working with older people.

Tullo, E., Newton, J., & Clapp, A. (2012, August). What can e-learning offer geriatric medicine in the UK? *Reviews in Clinical Gerontology*, 22(3): 235. Retrieved June 25, 2012.

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» Improving quality in care homes using an electronic tool

This article talks about the implementation of i-Care tool to measure the quality of healthcare in care homes and domiciliary care. It covers four areas – care planning, safeguarding, clinical effectiveness and operations – with some containing a number of elements. The article also covers the scoring system. The electronic format of i-Care enables an audit focused on health outcomes, generates immediate results and saves resources in terms of cost and time that quality monitoring reports need. The project was piloted in Nottingham, United Kingdom, between January and July 2010 with a number of quality visits and revisits completed.

Improving quality in care homes using an electronic tool. (2011, March 14). *Nursing Times*. Retrieved April 7, 2011.

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