Annotated Bibliography on Robotics in Medicine Dispensing

Name of Student

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Course

Professor

Date

News.bbc.co.uk. (2014). *Bbc news | uk | england | essex | robot medicine dispenser unveiled*. [online] Retrieved from:

http://news.bbc.co.uk/2/hi/uk_news/england/essex/3845535.stm [Accessed: 23 Feb 2014].

The author of this article describes Basildon Hospital that unveiled a robot medicine dispenser at a cost of £250,000. It is believed that the robot dispenser will reduce the number of dispensing mistakes, free up staff and speed up the service. The robot works just like the canned drinks machine and mechanical arms retrieve its stock. Once a prescription has been made, the drugs are picked and put in a chute by the robot and it arrives at the dispenser's workstation in ten seconds. The robot will safe labor and will help pharmacy staff to offer efficient services.

Slideshare.net. (2014). *Nursing, pharmacy benefit from robot-rx medication dispensing solution*. [online] Retrieved from: http://www.slideshare.net/PROmanager/nursing-pharmacy-benefit-from-robotrx-medication-dispensing-solution [Accessed: 23 Feb 2014].

The article is about evergreen hospital medical center. It focuses on the benefits of robot medication dispenser solution. The hospital sought to prepare for bar code medication by implementing the robot system and by so doing the hospital has increased a dispensing accuracy of 99.9 percent and realized about \$2 million in annual savings. The hospital uses robot dispenser to dispense to envelopes imprinted with the patients name and bar code. Patients envelops are transported via carts to the nurse servers. The robot has contributed substantially to documented improvements.

Gizmodo. (2014). *Robots will someday dispense all your medicines*. [online] Retrieved from: http://gizmodo.com/5807630/robots-will-someday-dispense-all-your-medicines [Accessed: 23 Feb 2014].

The article is about Rube Goldberg like pill dispenser that is powered by computers and robots. The robot prints prescription labels and sends the drug to the counter. Few mistakes happen but they are rare, but in case of a mistake, the attending pharmacist is available to rectify. A robotic dispenser that was launched by a pharmacy at the University of California is used to dispense standard pills and chemotherapy drugs, which require careful mixing and counting.

Epill.com. (2014). *Pill robot dispenses medications up to 28 times per day*. [online] Retrieved from: http://www.epill.com/pillrobot.html [Accessed: 23 Feb 2014].

The article is about an improved pill robot dispenser with a reminder system that helps to ensure that medications and vitamins at the collect time and dose. During medication time, the alarm sound and the pills rotate into position and the alarm only stops after the dispensing the pills.

Ucsf.edu. (2014). *New ucsf robotic pharmacy aims to improve patient safety | ucsf.edu*. [online] Retrieved from: http://www.ucsf.edu/news/2011/03/9510/new-ucsf-robotic-pharmacy-aims-improve-patient-safety [Accessed: 23 Feb 2014].

This article is about the use of robotic technology and electronics to track and prepare medications with the aim of improving patient safety. In the recent phase, the system has not recorder any error out of 350,000 doses. The robots are housed in sterile environment where they prepare oral and injectable medicine. They free pharmacists and nurses to focus on direct patient care.

Hcpro, I. (2014). *The pros and cons of rx robotics*. [online] Retrieved from:

http://www.healthleadersmedia.com/content/MAG-278910/The-Pros-and-Cons-of-Rx-Robotics## [Accessed: 23 Feb 2014].

The article focuses on use of robots in solving dispensing problems. The author cautions that, it is necessary to consider the potential downfall of the robotic system. The author claims that the cost benefits can change overtime for example; it can be a big challenge to the hospital when it changes the commonly used medications.

Ruhle, F., R. Braun, and H. Ostermann. "Impact Of Robotic Dispensing Machines In German Pharmacies On Business Performance Indicators." Libyan Journal Of Medicine 4.4 (2009): 146-151. Academic Search Complete. Web. 23 Feb. 2014.

The author uses data collected from over 250 pharmacies in Germany to see the financial impact of robotic dispensing machines. From his findings, it is evident that the savings were modest and the cost of the machine was offset by removing one position of a pharmacy technician. In future, the pharmacist will play an integral part in the health care system other than dispensing medication.

Drug Topics. (2014). *Automated dispensing, robots tapped to improve patient safety*. [online]

Retrieved from: http://drugtopics.modernmedicine.com/drugtopics/news/clinical/hospitalhealth-system-pharmacy/automated-dispensing-robotstapped-improve- [Accessed: 23 Feb 2014].

The author focuses on how the modern technology-driven pharmacy reduces drug errors and improves patient safety. She claims that automation has significantly reduced chances of drag error and that there is no other pharmacy technology that is scrutinized for than patient safety

more than the drug-dispensing robot. The author justifies the use of robotics in pharmacies and hospitals claiming that the cost of system is difficult for smaller pharmacies because fully automated robots are only cost effective in high volume pharmacies.

Wlnp.co.uk. (2014). Automatic dispensing robot. [online] Retrieved from:

https://www.wlnp.co.uk/about-us/automatic-dispensing-robot [Accessed: 23 Feb 2014].

The author describes the design of RoboPharma dispensing and how it works. He claims that the robot is designed for efficient storage and fast delivery of medicines dispensed within the pharmacy. The robot works with gravity and is reliable because it has few moving parts. The main benefit of the robot is its efficiency in storage and delivery of medicines.

Gulfnews.com. (2014). *Robot dispenses medicine at abu dhabi hospital*. [online] Retrieved from: http://gulfnews.com/news/gulf/uae/general/robot-dispenses-medicine-at-abudhabi-hospital-1.1202234 [Accessed: 23 Feb 2014].

The author of this article claims that pharmacists are human. He uses an example of a hospital in Adu Dhabi that has opened a robotic pharmacy. The hospital has eliminated any human era from occurring, it is the first of its kind in the Middle East. The robotic arm in the shop hands out the prescribed drugs over the counter within seconds. The robot is capable of delivering orders to the counter and arranging medicines on the racks simultaneously.