**Db Pyxis Supply System**

American Public University System

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 Healthcare is an intricate métier that involves a myriad of complex tasks that necessitate precision and effectual execution. In the contemporary era of technological advancements, the advent of various information systems, workstations, and storage units and carts are permeating effectiveness into the overall healthcare functionality. The implied infusion of technology also leveraged the faultless inventory management along with systems that are able to compute actual expenditures and medication identify usage of different products and trends of clinical analytics (Felder & Alwan, 2016). Such enhanced systems address the regulatory compliance standards and highlight the ways to prevent infections, etcetera. CareFusion’s BD Pyxis SupplyStation is one of the modern hi-tech marvels that proffer the healthcare industry with a smart and secure inventory management solution.

 Pyxis can be defined as an automated medication dispensing system that revolves around the conceptualization of an enterprise-ready medication management system. Through its advanced and unique functions, the system sustains the management of medication in a decentralized way. In the following, a brief description of Pyxis users, features, and impacts is elaborated.

**Characteristics of the Users of the Pyxis SupplyStation**

 Pyxis SupplyStation is used in the premises of ICU, operating rooms, Cath Lab, or nursing units, central services, emergency rooms, environmental services, or other areas of healthcare. Almost all healthcare workers and personnel, including nurses and other facility staff, rely on the SupplyStation for transpiration and storage of pieces of equipment in order to care and treat the patients.

**Features and Usage of the System**

       Pyxis SupplyStation is laden with practical features that allow healthcare personnel to access nursing supplies on the nursing floors throughout the facility. On the other hand, the SupplyStation partakes in generating and marinating documentation of supply usage by utilizing a real-time approach. The practical design and operating features of SupplyStation mitigate the prospect errors in the documentation process and smoothes the workflow considerably (Pyxis SupplyStation System, 2019). Pyxis refers to a flexible junction that amalgamates the notion of security with the idea of open inventory management. Through its unique and updated archetype, Pyxis interconnects the facility’s secure storage station, which afterward accumulatively organized under the console of Pyxis SupplyStation. The information system is also active in capturing accurate and fool-proof patient’s billing through the implication of automated procedures and hospital’s ADT and billing software. Moreover, the SupplyStation is helpful in affirming enhanced supply chain performance by augmenting the accuracy and exactness of the data; it also allows users to employ optional analytical devices, among which the Knowledge Portal Supply Technologies are eminent.

              Pyxis SupplyStation features different sizes and components that vary from healthcare services and purely depend on their unique requirements and facility needs. At the time of installation, a custom configuration is mandatory to comprehend and evaluate the best fit from an array of equipment options. For instance, the system components of a cardinal health unit can be entirely different from a general healthcare facility. However, some system components are fundamental and applicable to a typical healthcare environment; such components include stations, network information, SupplyCenter console, and comprehensive reporting.

Users can obtain required patients’ care and treatment supplies through following an uncomplicated procedure of entering the user ID and in case of a secured system, the password. The user interface and menu are expedient and straightforward and takes only a few seconds to execute the commanded task. Every accessing session automatically records the patient’s name, description, and quantity of removed supply transaction — such records afterward utilized for accounting purposes, billing, and restocking of inventory. Through efficient and convenient functioning, Pyxis SupplyStation performs the following activities.

* SupplyStation generates electronic transactional records for all the medical supplies endowed to the station. The records, in turn, control the overall expenditures and estimate the charges of lost inventory units.
* SupplyStation eradicates the conventional time-consuming and manual endeavors and therefore elevates the productivity of nursing and central supply system.
* Controlled supplies station report relevant information regarding inventory stocks and enhances the response time to a great extent.
* SupplyStation uses real-time data and optimizes inventory levels.

 The other salient features of Pyxis SupplyStation comprised of touch-to-take technology that suffuses an effortless and better access to the supply management. On the other hand, robust reporting is instrumental in maintaining, analyzing, and controlling the supply chain and all different interrelated facades. Along with entering the users’ ID, the system also offers an option to confirm the user identity through fingerprint system technology that takes no time and gets done with just one touch. Similarly, the SupplyStation is designed with Pyxis Rapid Access Drawer that keeps small and frequently used supplies handily available. The SupplyStation runs on A/C battery that implies a twelve-hour battery life, and the machine comes with wireless convenience.

**Impact of the System**

 Pyxis SupplyStation is an impactful device that provides a time-effective, cost-effective, and compliance-based effectual storage and management solution and equips the healthcare sector with an opportunity to indulge return on investments (CareFusion, 2019). The SupplyStation impacts the following three business and operational areas in a significantly viable and thriving manner.

* **Pyxis SupplyStation saves time:** According to an estimated observation, the SupplyStation decreases the time of clinical documentation by good 10.9 minutes for every case. Furthermore, the automated procedures eradicate the necessity of jotting down and managing all the inventories and records manually and ensure the timely availability of stocks. The pragmatism of SupplyStation accelerated manifold in operating rooms where the time is a critical factor and swiftness is imperative in delivering life-saving services. Caring and attending the patients is the underlying responsibly of nursing staff. Through integrated supply automation, they can save their time of preparing manual documentation and can utilize saved time on the betterment of their patients more comfortably. According to research, the time taking documentation process in conventional systems directly affects the flow of healthcare operations and asserted as inefficiency.
* **SupplyStation reduces the cost:** According to different case studies, it is proved that the implementation of SupplyStation to the healthcare métier has increased the profits by three million dollars. Pyxis SupplyStation reflects its operational effectiveness in the form of persistent gains on investments and improves case costing and cost capture. Along with other functionalities, the billing accuracy of the SupplyStation improves charge captures and cases requiring and impedes distractions. A rough estimation contends that through successful installation of SupplyStation could save approximately 11 billion dollars of the healthcare sector.
* **SupplyStation simplifies the compliances:** Pyxis SupplyStation is developed to comply with the joint commission and federal standards.

**Conclusion**

 BD Pyxis SupplyStation is a technological convenience that is enhancing the supply and storage management in healthcare and clinical settings. Nursing staff and other healthcare personnel employ the SupplyStation to improve the working conditions in OR, ICU, and emergency, lab, and nursing units. The SupplyStation actively records all the transactions along with interconnected informational fields and prevent the incidents of stock-outs or poor inventory management. On the other hand, the notion of improved services mitigates the processing time of supply chain activities and saves the precious time of nurses and clinical staff. Additionally, the computerized and pristine documentation establishes the grounds for meeting the compliance standards devised by the federal and Joint Commission. The most prevalent advantage of implementing SupplyStation’s efficacy to the healthcare operational processes is the cost-effectiveness. Financial gains and return on investments are the most tangible and thriving pros of Pyxis SupplyStation.

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