Operations Solutions Assignment (MTC's Trunk Stock Inventory)

Currently, a considerable part of the inventory is held as "trunk stock" by the salespeople. Should this practice continue? As part of the answer, be sure to provide pro's and con's for this decision.

Ans: As per my observation and understanding of the current logistics situation at MTC, the practice of inventory being delivered and hold up by the sales reps is not going to be efficient and also due to this costs will increase and will make the MTC’s goal of cost savings in their total revenue and net earnings can get even worse.

I feel that the MTC can do a DMAIC approach and implement the use of Kanban system (3 bin storage) where inventory can be stored at a particular warehouse that is close to the hospital so that the sales reps or even the hospital staff can directly go to the warehouse and get the amount of inventory they require. By this the hospital can even think of investing more in building a warehouse close to its location and consider safety stock as an option. By introducing technology tools like smart kiosks in the hospital premises which can be used to control and monitor the amount of current safety stock in the warehouse. The MTC can also centralize their inventory in other distribution centers that are closer to the hospital instead of holding and storing the goods in the sales rep’s own cars.

In simple terms, trunk stock is an updated version name for “Truck or Van” stock where inventory is located or stored in a field service engineer’s van or truck. Below are my pros and cons for this decision:

Pros:

1. By building a warehouse near to the hospital and having smart kiosks installed inside the hospital, the tracking and monitoring of inventory can be done easily and also we can add safety stock instead of having the inventory stored in sales rep’s cars which will result in longer lead time and additional storage and labor costs.
2. In case of any emergency at the hospital, the hospital staff can immediately ask a sales rep or they can go to the warehouse directly to get any additional equipment necessary instead of depending completely on the sales rep. This can also result in life saving situations of the critical patients in the hospital.
3. Keeping an adequate amount of safety stock inventory at the closest warehouse can be easily accessible in emergency situations since the hospital is a place where anything can happen at any point of time and hence it’s unpredictable.
4. This will decrease the lead time, save additional costs and most importantly will accelerate the supply chain process. The sales reps who are responsible to deliver the inventory to the hospital at the right time can react immediately to any unexpected demand in the inventory from the hospital and can directly deliver it to the hospital without any delay.
5. By delivering the inventory to the hospital without any delay in lead time, the sales reps can also prove their quality of service to the MTC and hospital management people so that they can expect a possible high commission rate and also reduce the lead time in responding to their customers.

Cons:

1. If the current system i.e. the trunk stock is being held by sales reps in their own cars for a longer period of time continues, then it may become very difficult for the hospital and the MTC to keep track and monitor the inventory at all times until it reaches the operating room. Moreover, if the sales reps are not that cautious or attentive, then there are high chances that the inventory can be stolen through thefts and can get damaged very easily even before the sales reps realizes. This will result in a huge loss of stock availability and also the costs of carrying and manufacturing them.
2. This will result in inefficiency and can result in additional transportation costs also since the sales reps will transport the inventory in their own cars and instead if the MTC can arrange for a large container truck, then more of the inventory can be transported.
3. The current supply chain process which MTC is using is running at a very poor and slow rate because the sales reps come to various different locations carrying the inventory and it becomes very difficult to track and monitor due to which sales rep the lead time is getting delayed which will result in transportation and storage costs also. There should be a one centralized approach and solution to manage and keep track of the inventory.
4. Due to lack of coordination, systematic approach and no proper guidelines to follow, gaining control of the current process for the MTC has become very difficult. Due to the increasing lead time caused by the sales reps, the manufacturers may also produce more inventory and this will lead to overproduction due to no proper communication with the MTC and sales reps. This will hamper the whole logistics network for the MTC and also will result in additional storage costs for the over produced goods.
5. The MTC and hospital also should be completely dependent and rely on the sales reps to deliver their goods due to various reasons that can happen while delivering like if any thunderstorm occurs and there is traffic accumulating on the road leading to more delay, then comes additional storage costs etc. If any sales reps also reports sick and does not show up, then there is no other solution for the products to get delivered to the hospital and instead it will remain with that sales rep. There is very less possibility also to ask other sales reps to go to that affected sales rep’s location, get the product and then get it delivered. This will result in more delay and also the sales reps’ vehicle also may not be that large enough to carry extra inventory.

In conclusion, I would highly suggest and recommend the MTC to not continue this process of holding inventory of “trunk cost” with the sales reps and instead think of the possible innovative, cost effective and more efficient and resilient supply chain process in order to save their inventory and also gain a huge profit and net earnings annually.