

Nr.	Abstract	
	Topic	Optimal Bed Utilisation and Patient Flow within a hospital using real time patient flow
	Speaker	
	Hospital-Partner as Reference	
	Hospital as Development Partner	
	Hospital Speaker	
	Topic	

1 Presentation of the Challenges

The effective unitisation of hospital beds is key to providing effective and efficient care, within the current financial and workforce constrained healthcare sector in Germany.

Current Issues - Without using a real-time patient flow technology the current coordination and management of demand, beds and patients, within a hospital, will be largely based on nurses, managers and coordinators manually collecting retrospective data, walking around the hospital looking for beds, coordinating and moving patients to free up key beds, unnecessary bed cleaning and frequent reviews of the statuses of patient readiness for discharge.

Causing, delays in the Emergency department, delays in the Post-operative recovery area, longer lengths of stay and a lack of bed availability. Frequent interuptions of operational and clinical staff and use of their time in managing patient flow.

Impact of poor patient flow - Poor patient flow inhibits the efficient use of beds and hinders patients accessing care. For example, poor flow can cause patients to dwell in the Emergency room for long periods of time without commencing care, result in planned care being cancelled. Poor Flow inflates costs and ties-up significant amounts of nursing time in managing patient flow at the detriment of patient care.

- Poor patient flow causes extended Length of Stay, which in turn causes the physical de-conditioning of patients that can cause harm and comorbidity to patients.
- Negatively impacts nursing and medical morale from the pressure in managing beds and provide information to managers and coordinators for patient flow.
- Operationally, poor patient flow leads hospitals to open extra and new beds thus increasing nursing and medical staffing in-line with additional beds that are opened.
- Operationally poor patient flow inhibits hospitals, with over capacity in being able
 to accurately measure what their effective number of beds per-service should be
 and insights from data from a real time patient flow solution is vital in highlighting
 the operational use of beds.
- Poor patient flow inhibits a hospitals ability to increase activity and attract new patients and increase income



2 Presentation of the Tasks / Goals

TeleTracking expect the following range of benefits for a client hospital as part of Entscheiderfabrik competition:

- Create ability of a hospital to increase activity and attract new patients and increase income
- To provide a real time accurate status of bed utilisation to support planning and ensure beds are available to reduce delays and improve productivity and reduce costs associated with poor patient flow. Such as – opening additional temporary or new beds. Underutilization of beds, opportunity to reduce over capacity of beds
- Reduce Dwell time of patients waiting in Emergency Department (ED) and help patients start treatment earlier
- Reduce Dwell time of patients being held in the post-operative recovery are due to lack of bed
- Reduce interruptions and time taken by nurses in managing patient flow to improve morale and increase job satisfaction for nurses and medical staff
- Reduce length of stay for patients, and reduce harms associated with deconditioning in hospital



Presentations of the solution

In brief TeleTracking provide an integrated solution of capabilities and functionality to enable a real time patient flow across a hospital or hospital services and include the following components:

TransferCenter™ (**TC**) application coordinates workflow for time-sensitive, critical, and routine transfers from one care facility to another. Essential, focused information is gathered and recorded. Tasks are time-stamped and measured in minutes for real-time operational quality monitoring and historical data reporting. Important measures include time of initial transfer request until clinical provider or physician call-back, time to acceptance for transfer, time of arrival to speciality care, and many other operational insights such as sending facilities, types of transfers, and rates of denial by service line or clinician.

Capacity Management Suite™ (CMS) comprises Bed Management and patient placement capability. Bed Management Suite monitors and records the current patient placement by bed, unit, care level, setting, and facility. Attributes of patient and bed are used to match needs to supply. Visibility and insight is provided through colour coded displays and unique identifiers.

TransportTracking™ automates the patient transport process by using dispatcher-less logic applied to facility layout. Automation and integration with Capacity Management Suite™ (CMS) provides a seamless continuity of care for patients and contiguous visibility into patient movement into, around, and out of the hospital.

PatientTracking Portal™ application provides a digital workspace for contextualised views of patients for wards and key units. Patients on a ward are visualised indicating current location, status, unique attributes, and care providers. This application provides a centralised point for communication and coordination of care among ward, patient flow and discharge teams within the ward. Where any Delays, barriers, and task can be progressed. Captured and are quickly and simply visible, eliminating the need to seek out individualised patient information and enable sharing among ward-based staff and visible to the Patient Flow Command Centre.

BedTracking™ provides visibility and communication for bed cleaning coordination. BedTracking® notifies the cleaning team by assigning the job and tracks response time and task completion times in minutes. When certain parameters are met, patient flow operations continue normally. When thresholds are exceeded, an escalation is automated to cleaning team managers for review and opportunity to intervene.

Trail of Real Time Location Technology to benefit patient safety, staff and patient security, asset managment and to augment clinical operations and patient flow



4 Description of your Services within the Topic handling after winning the competition, i.e. in the 12 month until Entscheider-Event 2021

Teletracking offers a pilot customer a full implementation of the scope of integrated TeleTracking solutions described in answer 3 of the abstract. For a hospital or large hospital service, for an initial 12 months free of charge with an opportunity to continue with the use of the platform for a further 5 years as at preferential rate of charge.

To enable a deployment for 12 months with an option for extension Teletracking would provide an implementation Project Manager, a Technical Project Manager and an Implementation / Training / Transformation team over a 20 week duration from decision to proceed to go-live of the system. Plus, optiomisation support for a period of week after go-live.

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5 Description of the requirements the hospital pilot should full fill

The Hospital Pilot partner will provide a full selection of inpatient emergency and planned hospital adult services or mixed emergency and planned hospital services for adult and paediatrics. With a will and senior executive recognition of the issues of patient at their hospital and a will and drive to deploy a real time patient flow solution and support the technological and transformational change needed to improve productivity from increased bed availability. To be a reference site for other German hospitals to visit to see effective use of a real time patient flow solution.

We would ask that the clients resource: Time from a senior executive operational leader to act to assure the project implementation for the pilot hospital. A full-time project manager for the duration of the implementation and go live and access to IT technical teams and a nursing leader for the duration of the implementation and optimisation to lead effort with clinical and administrative staff. 5 x half-time seconded nurses and coordinators to act as trainers and advocates for the solution for the implementation and optimisation. Access to a data analysist to create base line information and help track benefits.

Description of a sustainable topic handling – what kind of efforts the hospital pilot has to invest in the topic in the long term?

In the longer term after the one year pilot is successful and the client opts to continue with Teletracking we usually see clients needing a half-time equivalent IT person to act as System Administrator, for the client IT department to act as first line help desk for issues. Teletracking will provide 24/7 technical support (IN ENGLISH). We expect that the coninued use of the system is owned by the Operational teams and executive leadership.