

# **SYSTEMATIC** **COLUMNA**

Clinical Logistics

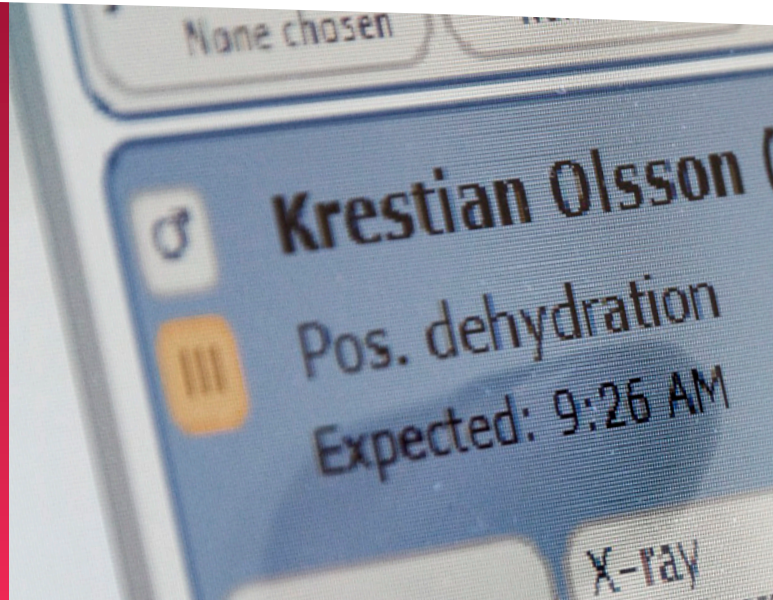


Columna Clinical Logistics provides healthcare staff with a real-time overview of current status in the department in terms of both staff and patients.

This unique software module helps ensure effective communication and coordination, resulting in a high level of treatment quality and patient safety, combined with a more efficient patient flow

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Clinical Logistics



## Challenges in hospitals

Most hospitals have to face the multiple challenges involved in treating more and more patients using the same – or fewer – resources, while still maintaining the same high-quality levels of patient care.

Columna Clinical Logistics enables hospitals to improve patient throughput as well as improving the work environment via effective coordination and communication.

## The basic idea

The idea behind Columna Clinical Logistics is to provide healthcare professionals in all hospital departments with the information they need to enable them to manage the flow of patients effectively.

Columna Clinical Logistics gives users a full overview of key information about patients, staff, facilities, treatment plans and work assignments, as well as what is happening elsewhere in the hospital. All this information – and much more – is easily accessible to all the hospital staff involved, and is updated in real time. Big interactive touch screens, placed at strategic locations, provide a complete overview while PCs with smaller screens provide information in offices, coffee rooms, wards, laboratories, etc.

Using the Columna Clinical Logistics web module, healthcare professionals are able

to download all the necessary information to a smartphone or an iPod that they can keep in a pocket for rapid consultation anywhere and anytime. Using the automatic text message service, healthcare professionals can make sure they are always kept updated about significant status changes for their patients.

# 4%

increased  
productivity

Columna Clinical Logistics also integrates with many different tracking systems, which improves coordination and efficient access to patients, staff and resources.

Clinical logistics is a field within healthcare IT that has received little attention until now. However, the benefits of implementing Columna Clinical Logistics solutions are so convincing that this new technology is now being

implemented in more and more hospitals across Europe.

## User friendly

Columna Clinical Logistics solutions are based on touch-screen technology. This makes them exceptionally intuitive and easy to use – it shouldn't take more than five minutes to learn the basics.

## Modular thinking

This Systematic concept builds on the very latest advances in software technology. The extended use of modular integration and programming interfaces that comply with recognised international standards means Columna Clinical Logistics meshes seamlessly other hospital ICT systems. This makes it a powerful information and logistics hub that makes a key difference in helping hospital personnel in treating and taking care of patients even more efficiently.

Columna Clinical Logistics is designed around a series of modular software components. This means the information shown on the screens can be configured to fit the exact needs of each particular department.

This innovative technology is already in use in most Danish hospitals. Independent studies have reported benefits that include increased patient flow, improved work environments, fewer cancellations and faster treatments.





## Emergency

Columna Clinical Logistics - Emergency is designed to give emergency department staff and their other healthcare colleagues a real-time overview of current status in the department in terms of both staff and patients, as well as the ongoing ER triage procedures. This unique software module helps ensure effective communication and coordination, resulting in a high level of treatment quality and patient safety, combined with a more efficient flow of acute cases.

Using Columna Clinical Logistics – Emergency means less time is wasted on communication, delays, interruptions and trying to locate and manage personnel, patients and tasks. As a result, it's possible to treat more patients as well as to provide better quality of treatment.

Columna Clinical Logistics - Emergency is integrated with all the patient records stored in the Columna clinical information system, as well as other clinical systems, and provides users with a real-time overview of all the relevant information. All relevant staff have a complete picture of each patient, his or her treatment and the status of their lab tests, x-rays, etc. They also receive automatic text messages enabling them to react quickly to any new information.

Columna Clinical Logistics - Emergency provides a full overview of the organisation's resources – regardless of

department. This makes it an essential tool for establishing and maintaining an effective, well-integrated emergency department. The solution ensures effective communication and coordination between the different departments, resulting in a safe, effective flow of patients through the ER and onwards.

It's easy to see which patients are scheduled to arrive, how long they have been waiting or how long they have been undergoing treatment.

**Using Columna Clinical Logistics – Emergency, healthcare professionals are able to maintain a full overview of:**

- incoming and waiting patients
- staff on duty, and their work assignments
- status on individual patients and their treatments
- resources available in the hospital, such as the current availability of beds
- cooperation and communication between the ER and other departments that cooperate with the ER
- automatic acquisition and collation of patient and process data, thus improving the quality of information available to management, helping them make better-informed decisions

“The Emergency set-up has had an incredible effect on our overview. We are **saving time** and **improving the quality** of our treatment”

*Ove Gaardboe, Chief Physician*

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## Surgical

Columnna Clinical Logistics - Surgical is specifically configured to support workflows and communication in OR departments and in wards that work and coordinate with surgery departments. The system is designed to streamline the complex work situations in operating rooms, where changes in the OR programme and surgical teams often occur, and often at short notice.

Columnna Clinical Logistics - Surgical gives users a full overview of all operating facilities and of elective and acute patients, and of the staff available to treat and care for them. The status of operations taking place in each operating theatre is clearly shown on the screen, along with a live video feed. The solution

makes it possible to seamlessly incorporate any changes in the day-to-day schedule for each operating theatre, while keeping every member of staff fully

**15%**  
**increased  
utilisation  
of operating  
theaters**

informed and up – to date about the flow of patients.

The system provides a better overview that makes it possible to achieve more effective use of existing resources – such as operating rooms and staff – while reducing delays or cancellations in planned operations.

When staff have a clear overview of all relevant information, there is less stress and confusion all round. This results in a better work environment and more motivated staff, which also brings significant benefits for the overall well-being of patients. The daily schedule for each operating facility is displayed and is easy to edit on the touch screens, so the OR staff and other healthcare professionals are always up to speed on all ongoing and upcoming operations.

Columnna Clinical Logistics - Surgical improves efficiency and increases the flow of patients into the operating theatres available.

### **An independent study shows that Columnna Clinical Logistics - Surgical:**

- increases productivity by 4% annually, measured in DRG
- boosts utilisation of operating rooms by 15%
- reduces the number of cancelled operations by up to 66%.

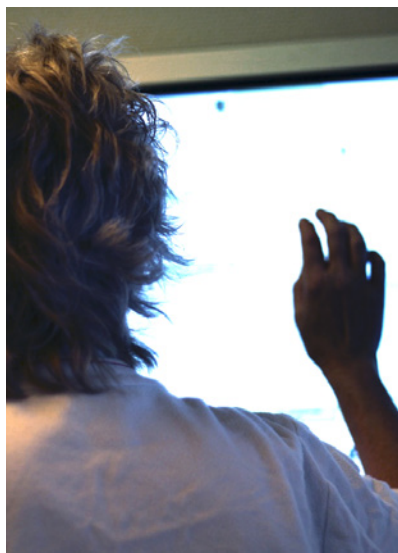






## Patient Ward

Columna Clinical Logistics - Patient Ward supports the coordination of day-to-day hospital activities at ward levels. It provides coordinators with an overview of patients who have been admitted, are arriving or are scheduled to arrive, and the beds available, for them. Combined



with staff overviews and information about the workload assigned to each member of staff, this helps each coordinator to plan the ward activities effectively. Based on information about the activities planned for each patient, Columna Clinical Logistics - Patient Ward automatically registers the overall ward workload and is therefore a major help in

effective planning – both at ward level and for the hospital in general. Columna Clinical Logistics - Patient Ward helps the staff of each ward provide the right treatment at the right time for all the patients on the ward at any given time. It gathers and collates all essential information about each patient and displays this key data on big touch screens. A special notification function improves the ward staff's awareness about new patient information, which helps them to act in time and continuously prioritise their focus and their resources.

The solution uses intuitive overview screens that are updated instantly. This means all personnel have a real-time overview of any changes. In addition, the solution supports coordination in real time between wards and departments outside the hospital. Columna Clinical Logistics - Patient Ward supports seamless communication between the staff and wards, and provides a real-time overview of each patient's treatment plan.

Columna Clinical Logistics - Patient Ward creates a more efficient work environment with a smoother throughflow of patients – who experience fewer delays and less waiting time. Automatic text messages improve overall communication and efficiency within the department, and make sure important information reaches relevant staff members as quickly as possible.

### Using Columna Clinical Logistics – Patient Ward makes it possible to provide ward staff with:

- a full overview of available beds
- real-time status on each patient and their treatment
- overview of each staff member's tasks, responsibilities and workload
- easier prioritisation of patients, resources and activities
- easy communication via text messages and a chat function
- automatic collection and collation of patient and process data, which significantly improves the quality and consistency of the information available to hospital management for their decisions.

**Operation  
cancellations  
reduced by  
66%**

# SYSTEMATIC COLUMNNA

## Clinical Logistics



## Anywhere

All the information available in the Surgical, Emergency and Patient Ward modules of the Columnna Clinical Logistics system can also be accessed via the Columnna Clinical Logistics - Anywhere mobile interface. The idea is to enable doctors, nurses and service staff to have easy, instant access to all relevant information on their smartphones, tablets or laptops, regardless of where they may be within the hospital.

Using Columnna Clinical Logistics - Anywhere, each staff member has a real-time updated status of their individual tasks, the status of patients and the resources available to treat them.

Columnna Clinical Logistics - Anywhere provides users with the latest

information about patients, acute surgeries, available beds, staff, treatment plans, text message services and much more.

Columnna Clinical Logistics - Anywhere works on any mobile device with an Internet browser and a connection to the hospital's internal network. This includes:

- smartphones (iPhone, Android, Windows Phone 7, etc.)
- tablet computers (iPad, Android, etc.)
- iPod Touch
- laptops (PC/Mac).

Like every other solution from Systematic, Columnna Clinical Logistics - Anywhere is designed from the outset to be intuitive and user-friendly.

## Integration

Systematic recognises the importance of highly integrated healthcare IT systems. This is the only way to ensure efficient data sharing, communication and the availability of clinical information. Columnna Clinical Logistics supports a large number of application programming interfaces (APIs) to all the most central systems in healthcare, based on recognised international standards such as HL7.

Columnna Clinical Logistics solutions are already integrated with the most widely used clinical information systems and patient administration systems, as well as with specialist booking, lab and x-ray systems. Furthermore, Systematic runs an ongoing programme for developing greater integration via the APIs and other interfaces most commonly used in hospitals around the world.

Columnna Clinical Logistics solutions can also be integrated with DECT and IP telephony systems, smartphones and a range of different indoor tracking solutions. Systematic works continuously to make sure Columnna clinical information and logistics solutions provide hospital staff with maximum benefit in their work.





## Business Intelligence

For the first time, hospitals have access to a solution that collects and collates real-time data. Administrators can access this important data through Columna Clinical Logistics - Business Intelligence, and thus benefit from a new functional overview of the treatments and processes taking place in the hospital.

Because the Surgical, Emergency and Patient Ward modules of Columna

Clinical Logistics all use real-time data that is saved onto a server, every part of the workflow can be analysed and displayed in visual form, using the special Columna Clinical Logistics - Business Intelligence module. A simple process of clicking and dropping data into a spreadsheet automatically displays the performance of each particular department or departments.

Using the Columna Clinical Logistics - Business Intelligence module means hospital administrators and managers can immediately detect performance and efficiency problems within the hospital organisation, and tackle them accordingly. Columna Clinical Logistics - Business Intelligence also enables management to benchmark the hospital's performance on the basis of reliable, up-to-date data.

## Columna Clinical Information System

The Systematic Columna Clinical Information System is one of the most advanced systems of this kind currently available anywhere in the world, a fully integrated health record and one of the most widely used systems in Denmark.

Five Columna modules together form a complete, integrated clinical workplace, providing efficient support to the work of health professionals at hospitals:

- the Patient Record module
- the Medication module
- the Booking module
- the Order and Result module
- the Patient Administration module

Columna provides doctors, nurses and medical secretaries with an easy-to-use way to carry out the vast majority of their clinical, planning and patient

administration registration duties using one single, easy-to-use system.

Combined with the Columna clinical information system, Columna Clinical Logistics provides every hospital organisation with a completely integrated solution that optimises efficiency, safety and quality.

While Columna Clinical Logistics supports patient flow, communication and coordination, the Columna Clinical Information System supports all the clinical and administrative documentation and planning required for each individual patient.

The Columna Clinical Information System and Columna Clinical Logistics mesh perfectly via HL7-based integration.

The Columna Clinical Information System provides Columna Clinical Logistics with all relevant information regarding test results, planned procedures and scheduled activities to be handled, etc. to make the information available for the relevant healthcare professionals in reliable, easy-to-use form.

Systematic's unique combination of a highly advanced clinical information system and the state-of-the-art Clinical Logistics system brings a substantial value boost to every hospital.

Read more about Columna Clinical Information System at [www.systematic.com/columna](http://www.systematic.com/columna)

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## Contact Systematic

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### Denmark

Systematic A/S  
Søren Frichs Vej 39  
8000 Aarhus C  
Tel.: +45 8943 2000

Landgreven 3  
1301 Copenhagen K  
Tel +45 8943 2000

### United Kingdom

The Coliseum  
Riverside Way  
Camberley, Surrey  
GU15 3YL  
Tel +44 1276 675533

Kesteven Business Centre  
2 Kesteven Street  
Sleaford, Lincolnshire  
NG34 7DT  
Tel +44 1529 303322

### United States of America

5875 Trinity Parkway, Suite 130  
Centreville, Virginia 20120-1971  
Tel +1 703 385 7522  
Free phone +1 888 665 IRIS

### Finland

Finlaysoninkuja 19  
33210 Tampere  
Tel +358 207 463 870

[healthcaresales@systematic.com](mailto:healthcaresales@systematic.com)

[www.systematic.com](http://www.systematic.com)  
[www.clinical-logistics.org](http://www.clinical-logistics.org)

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## About Systematic

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Systematic is an international renowned developer and supplier of off-the-shelf scalable software products for use in the healthcare sector, the defence industry, financial services and the public sector. Headquartered in Denmark, we also have subsidiaries in the United Kingdom, the United States and Finland. Systematic is certified as a CMMI level 5 company.

For more information about the company visit [www.systematic.com](http://www.systematic.com)

For more information about Columna Clinical Logistics visit [www.clinical-logistics.org](http://www.clinical-logistics.org)