



# Powering-up **patient care** – in your pocket

How **mobile case management**  
helps physicians overcome  
emergency department pains

**SYSTEMATIC**



## Better care with digital case management

A hospital's emergency department is a stressful place to work. Frequent interruptions, workload pressures, task delegation troubles, and time obstacles make this environment especially difficult for attending physicians, who bear the brunt of making sure things run smoothly. The frenetic pace of work combined with piling pressures to juggle multiple task flows can lead to bad patient outcomes.

Providing physicians with a simple, one-stop tool to manage patient care can help achieve a better work environment. A mobile solution addresses bottlenecks in task management, communication, and patient information by putting the overall picture of patient care into one easy to access place: a physician's hospital smart phone.

### Key benefits of a mobile-based solution:

- A **mobile-based** solution improves workflow efficiency.
- **Asynchronous communication** results in fewer interruptions.
- Mobile workflows get physicians **closer to their patients**.
- Physicians are more empowered to **make the right decisions**, faster.



Get in touch with us



Pages can interrupt direct patient contact as much as

**65%**

of the time.

## How important is a **ping in the pocket?**

Physicians in emergency departments are constantly bombarded by interruptions as they work to complete tasks. The pager, though an inseparable tool for hospital communications, is nonetheless a burden. Studies have shown pages can interrupt direct patient contact as much as 65% of the time<sup>1</sup>, with one physician tracked as receiving a page on average every 7 minutes<sup>2</sup>.

It's also difficult for physicians to distinguish between different "ping in the pocket" notifications. Moreover, time spent calling special functions physicians and waiting for responses significantly adds to the often hours a patient must wait between arrival in the ED and the preparation of a treatment plan. This constant interruption can negatively interfere with patient care and contributes to stress on both patient and physician.

In one field test, Systematic researchers followed a patient through the acute flow of an emergency department at Aalborg University Hospital. In this time, a first-call resident made an astounding 13 phone calls to special functions departments and their attending physician, before finalising a treatment plan. And that's just for one patient. Factor in four patients in an hour, for example, and it's easy to see how physicians can be inundated by interruptions or attempts to contact colleagues who may otherwise be unreachable.

A mobile-based task management system breaks this phone chain cycle by offering an easily accessible directory of who is on duty, where and when. The directory highlights online colleagues, including their role, workload and availability.

An asynchronous messaging system within the mobile platform avoids endless phone calls by allowing physicians to easily send secure messages – including short videos – to their colleagues at any time. These messages are always linked to the patient in context, also within the platform, which minimises the risk of errors and the need to repeat information.

This means physicians can answer messages on their own time, when it suits their individual workflow, without the risk of constant annoying interruptions.



Studies in Denmark and Germany show emergency physicians spend only **25% of their time** on direct patient care.

It's no secret that physicians spend hours of time in their offices, in front of computers, managing patient paperwork and waiting on test results.

One study of an emergency department at Kolding Hospital in Denmark showed that physicians there spent only 25% of their time on direct patient care.<sup>3</sup> An additional 31% of time was spent documenting their work. Data from a comprehensive German study of time allocation in emergency departments found similar results, with physicians there spending only 30% of their time in direct patient contact, and nearly as much time (29.3%) documenting and writing.<sup>4</sup>

*“Right now, physicians must wait in front of the computer pressing F5, F5, F5 to refresh the screen and wait for the test results,”*

Systematic Clinical Tasking Product Manager Lotte Bjerre says. It's time that takes away from seeing other patients at their bedside.

What if, instead, lab results were delivered directly to physicians, on their phones?

By linking lab results to a patient's journal on an app, this task moves from the office to the scrub pocket.

*“We want them out of the offices, and closer to the patient,” Bjerre says.*

By removing the need to constantly return to their computers, physicians are free to do what they do best: see and treat patients.

# Out of the office – and back to the patient

A solution that uses **machine learning** can help physicians quickly and accurately sift through a **patient's EMR**



When a patient comes into an emergency department, physicians need facts, fast. But it's time-consuming and onerous to sift through journal data on a desktop computer, away from the patient. When moments count under pressure, physicians might miss crucial details, and mistakes can and do happen.

Having relevant data at the ready upon intake can improve patient safety and care.

**Imagine a patient arrives in the emergency department, complaining of chest pains. Her medical record shows a history of angina pectoris and a lapsed prescription for statins. But it also contains pages of potentially irrelevant information. Is her broken arm from 10 years ago important to the task at hand? Perhaps not.**

A solution that uses machine learning can help physicians quickly and accurately sift through a patient's electronic medical record. Columna Flow Clinical Tasking uses this technology to pull information based on different overview data points, for example a patient's age, gender, eventual chronic diseases, and current condition. The program then quickly parses a patient's EMR and presents a summary containing only the relevant and immediately necessary patient history – such as the heart conditions in the example.

With this patient summary at hand, physicians have the information they need, faster. A full patient history is always available in the EMR for easy reference. The result? Better workflow efficiency and all-around patient safety.

## Journal data at the ready

With a **mobile solution**,  
a first-call resident can  
handle up to

**5**

patients at a time



## Reducing stress through better **task management**

Prioritising and allocating tasks to first-call residents is very stressful. In the busy emergency department environment, it's difficult for physicians to find the right information, know the workload of other physicians, and keep track of the overall picture of patient needs. This can lead to physicians, and especially attending physicians, feeling overwhelmed and stressed due to their hectic schedules.

A mobile solution which allows physicians to get the overall picture of patient flow in one place – their phone – empowers first-call residents to manage their own workday and prioritise patients. Such a solution helps attending physicians allocate the right patients to the right first-call residents, and eases the burden of task management. This mobile solution works as a foundation for decision-making and prioritisation of patients and tasks. First-call residents have increased authority to make the right decisions, fast.

With a mobile solution like Columna Flow Clinical Tasking, a first-call resident can now conceivably handle up to five patients at a time. This brings down overall diagnosing time, reduces stress on both physician and patient, and eases patient-forward care.

84,000+

users

46+

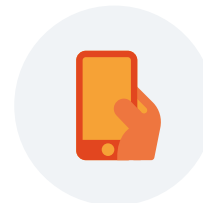
hospitals

15+

years of experience in  
implementing healthcare  
solutions

16m+

performed tasks



**Columna Flow** is the collective name for **Systematic's** solutions that support and optimise hospital workflows across disciplines and departments.

The product suite is developed for hospital staffs' varying workflows and is accessible from different platforms depending on needs and situation. The user-friendly interface makes it easy for caregivers, porters, and service staff to gain an overview, select, and complete tasks. The information is shared in real-time across platforms so that coordinators and management can follow progress and intervene before a potential challenge becomes a real problem.

The suite consists of digital solutions for service and clinical task management, a command center creating a hospital overview, search & find function to locate equipment and resources, as well as wayfinding around the hospital.

**Columna Flow** is built to facilitate dynamic workflows across hospital departments and enable situational awareness for all staff members as well as management.

## About Columna Flow

Want to learn more about our digital task management solution and how it can benefit your hospital? Reach out to us:

**Email:** [more.info.healthcare@systematic.com](mailto:more.info.healthcare@systematic.com)

**Phone:** +45 89 43 20 00.

**Web:** <https://systematic.com/en-gb/industries/healthcare/landing/ebook-clinical-tasking/>



Get in touch with us

<sup>1</sup> Katz MH, Schroeder SA. The Sounds of the Hospital. Paging Patterns in Three Teaching Hospitals. *New Engl J Med.* 1988;319(24):1585-9.

<sup>2</sup> Chiu T, Old A, Naden G, Child S. Frequency of calls to "on-call" house officer pagers at Auckland City Hospital, New Zealand. *N Z Med J.* 2006;119(1231).

<sup>3</sup> Füchtbauer LM, Nørgaard B, Mogensen CB. Emergency department physicians spend only 25% of their working time on direct patient care. *Dan Med J.* 2013 Jan;60(1):A4558. PMID: 23340186.

<sup>4</sup> Weigl M, Händl T, Wehler M, Schneider A. Beobachtungsstudie ärztlicher und pflegerischer Aktivitäten in der Notaufnahme [Time-allocation study of nurse and physician activities in the emergency department]. *Med Klin Intensivmed Notfmed.* 2021 Apr;116(3):229-237. German. doi: 10.1007/s00063-020-00657-4. Epub 2020 Feb 18. PMID: 32072195; PMCID: PMC8016769.