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Use of a software to optimize the surgical process and to assure traceability of procedures in a high throughput orthopaedic hospital

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Surgical departments Galeazzi

- 2 operating blocks
- 11 operating rooms
- 24 surgical teams
- 14000 Interventions per year - 50/70 per day
- 190 people on staff per day (104 nurses)
- Coordination: 14 wards, intensive care unit, sterilization department, equipment service, pharmacy, blood bank, laboratory, emergency department



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Project IRCCS Galeazzi - HCS

- A pilot project (first in Europe) of applied operations research aimed to the implementation of an innovative technology platform specifically designed to handle real-time, critical events and activities of the patient flow into the hospital
- The project would improve the management process of the flow of surgical patients
- The project would improve productivity, efficiency, effectiveness (*of hospital*), safety and compliance (*of patients and personnel staff*) in surgery



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Project HCS - IOG

Results

Results:

- 100% femur fractures treated before 48hs from hospitalization (vs. 82% 2014)
- Punctuality (first patient) improved by 9%
- Use of preparing rooms (near to theater, before entering theaters) increased by 17%
- Rates of rotation of operating rooms improved by 7%
- Saturation of the operating theaters increased by 3%
- Patient call (average time) from operating block reduced to 22 min.



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Project HCS - IOG

Results

- Reset the dead times of the operating room for not-ready patient
- Rescheduling of real-time operating sessions for cancellations, AddOn and Emergencies
- Real-time validation procedure protocols preoperative, % decrease in errors, preventing delays
- Planning operating sessions on the basis of real time
- **Most of the time of doctors and nurses devoted to the patient**
- **Greater motivation and satisfaction of staff/patient**



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Project IRCCS Galeazzi

Conclusions

- The project has confirmed that the adoption of innovative technologies in healthcare can increase significantly productivity, efficiency, effectiveness of surgical processes, patient safety, better use of resources, greater employees satisfaction and reduced costs.