



Robotization and scanning in the global distribution of drugs: impact on rate of error and efficiency

O. François^{1,2}, M. Aussedat¹, L. Carrez^{1,2}, L. Gschwind¹, P. Bonnabry^{1,2}

¹Pharmacy of the Geneva University Hospitals, ²Department of Pharmaceutical Sciences, University of Geneva, University of Lausanne, Geneva, Switzerland

Distribution is a source of errors that can affect the safety of patients. Ensuring a high-quality supply to all departments is a daily challenge. Robotization and scanning are potential solutions to human errors.

Aims: To evaluate the impact of robotization and scanning on the rate of error and drug distribution time

MANUAL DISTRIBUTION



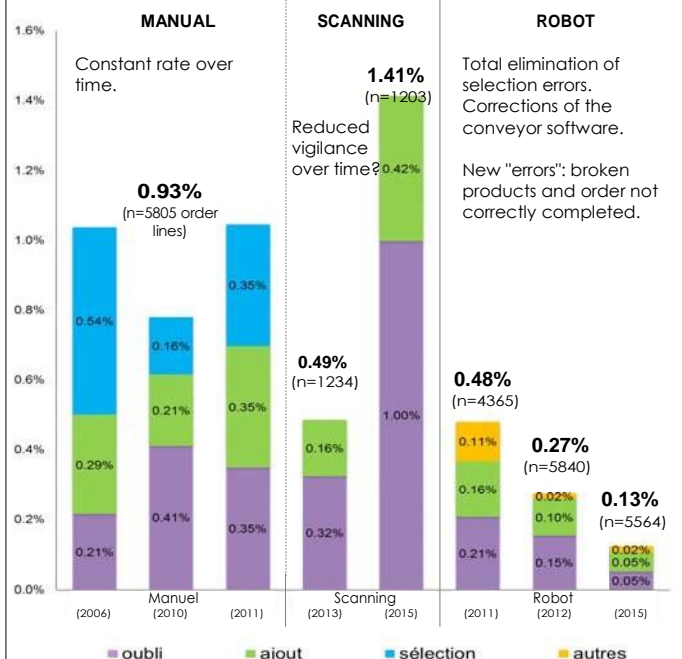
SCANNING



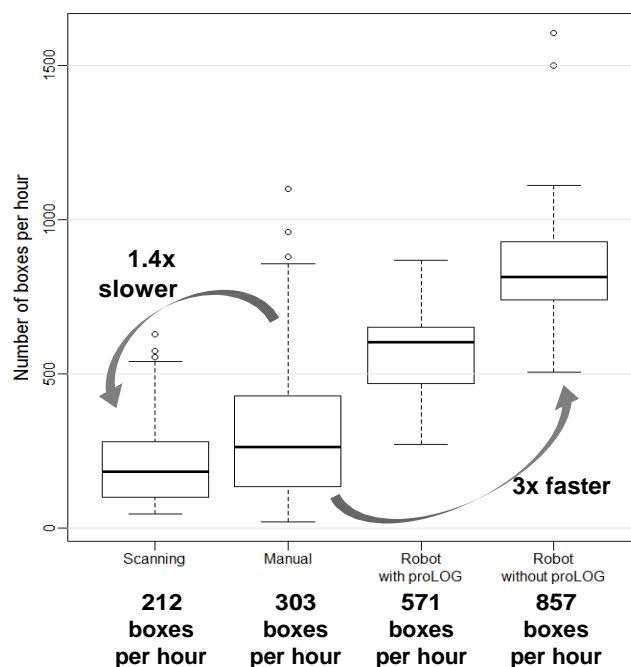
ROBOT



Improvement in **SAFETY**:
Impact on distribution **ERRORS**
(standardized grid)



Improvement in **EFFICIENCY**: impact on distribution **TIME** (random orders)



The robot makes it possible **to reduce, by more than 7 times, the relative risk of an error** in the preparation of orders, **while gaining speed**. In order to gain efficiency, the automatic loading system (Prolog) is put into operation at night or when there are fewer orders.

Despite a longer distribution time, scanning **eliminates selection errors** - the most dangerous ones - but at the expense of increasing quantity errors. **An awareness campaign** will be conducted among the team in order to counter this **reduced vigilance**.

