Post-hoc risk analysis of the administration circuit for anticancer preparations using the C-log® system

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Why was it done?

In the current context of rising production of anticancer preparations (AP), our hospital has adopted the C-log® tool to improve the safety and traceability of AP administration
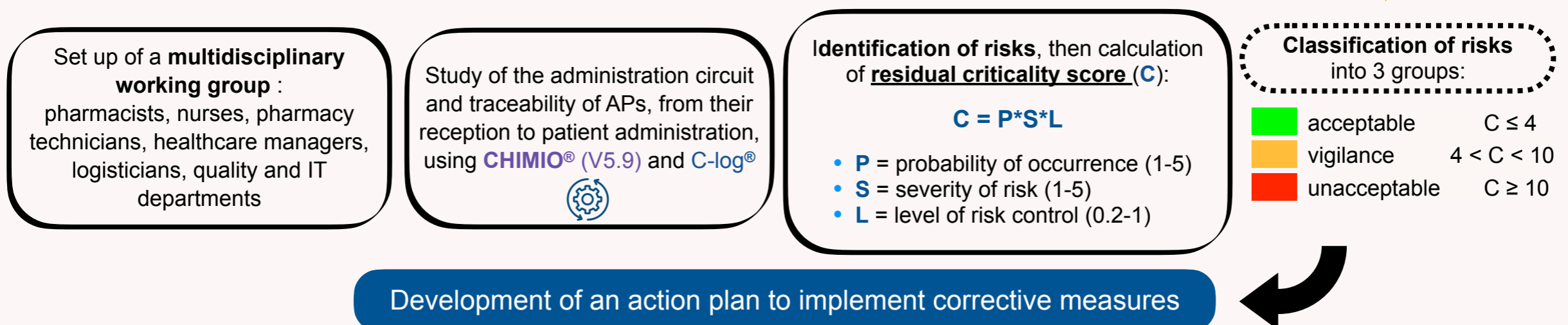
What was done?

Evaluation of the integration of administration and traceability software into the AP administration circuit through a posteriori risk mapping in the oncology day ward

How was it done?

From june to september 2024

Set up of a **multidisciplinary working group** : pharmacists, nurses, pharmacy technicians, healthcare managers, logisticians, quality and IT departments

Study of the administration circuit and traceability of APs, from their reception to patient administration, using **CHIMIO®** (V5.9) and C-log®

Identification of risks, then calculation of **residual criticality score** (**C**):

$$C = P * S * L$$

- **P** = probability of occurrence (1-5)
- **S** = severity of risk (1-5)
- **L** = level of risk control (0.2-1)

Classification of risks into 3 groups:

- acceptable — $C \leq 4$
- vigilance — $4 < C < 10$
- unacceptable — $C \geq 10$

Development of an action plan to implement corrective measures

What has been achieved?

39 risks identified:

Steps in the process:	Number of identified risks:
Patient identification	3
Verification of the parameters/ constants necessary for the administration of APs	2
Administration of premedications	5
Identification of APs	11
Administration of APs	12
Administration of hydratation	2
Traceability tool	4

34 acceptable

1 vigilance
Inability to trace anticipated premedication intake on the software

4 unacceptable

Disrupted PEI reading on the patient's wristband **(due to wristband opacity)**

Increased traceability time for the administration of the entire protocol (checkpoints, premedications, APs)

Lack of training for nurses on the tool
Omission of important informations

Mismatch between PEI's : wristband / AP label (administrations over multiple days)
AP labels only contain PEI* of the pharmaceutical validation day

Wristbands PEI	AP's PEI	
PEI D1	PEI D1	✓
PEI D2	PEI D1	✗
PEI D3	PEI D1	✗

*Patient's Episode Identifier

Action plan includes 3 corrective measures:

Choice of traceability mode and the concomitant use of:

C-log® for **AP's only**

+

CHIMIO® for **the rest of the protocol** (checkpoints, premedications intake,…)

Patient wristbands

Changing wristbands: **use of clearer wristbands**

+

Use of the patient's **Permanent Patient Identifier** on wristbands

New training for nurses in the use of the tool

What is next?

Risk mapping highlighted C-log®'s contribution to reinforce identity vigilance. It demonstrated the importance of nurse's acceptance of the software and therefore the need for sufficient training time on the tool.
For an optimal use of the solution, key points need to be checked: the choice of the wristband and the patient identification number, and the method of traceability: AP's only or the entire protocol? Once the corrective measures have been implemented, the risk mapping will be re-evaluated to assess their impact