The impact of introducing of clinical ward pharmacy services

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Background

The Health System evolution has led to a transformation of roles and tasks traditionally assigned to the hospital pharmacist; now he is required to be an integral part of the healthcare team, in order to support both management therapies and patient safety. The Veneto Oncological Institute IRCCS (IOV) of Padua has been selected as one of the five Italian centres of excellence in oncology taking part in the project sponsored by the Italian Ministry of Health
(July 2010 - February 2011), aimed to evaluating the contribution given by the continuous presence of a pharmacist in an oncological departement. The monitoring reporting of Near Miss was one of the outcome indicators of the project.

Tab.1. Outcome indicators of the project

Outcome indicators	Description	Calculation method	Frequency of collection	Frequency of analysis
Safety of drug treatment	drop in admissions for adverse drug events	N ° patients re-hospitalized for a week because of the dimissionea events / reactions to medications / number of patients discharged	Monthly	Quarterly
	near miss recording	N ° near misses recorded during the control period / number of near misses for the same period last year	Monthly	Quarterly
perceived quality of service	Approval from health professionals about the service offered	N ° healthcare satisfied / number of health workers interviewed	Monthly	Quarterly
	Approval from patients on this service	N°Satisfied patients / N ° patients interviewed	Monthly	Quarterly

Objectives

The work aim was to verify the contribution given by the pharmacist in the oncology department in Near Miss reporting.

Materials and Methods

A prescription register (updated day by day) was created for monitoring all the following situations that could be causes of near misses (picture1):
- Sending statim prescription not agreed
- Difficult to read recipe
- Incorrect date
- Wrong dosage
- Diagnosis not present or incomplete
- Not standardized prescription form

Each situation has been evaluated in term of risk level. All the high risk prescriptions were recorded as non-conforming to our Quality System.

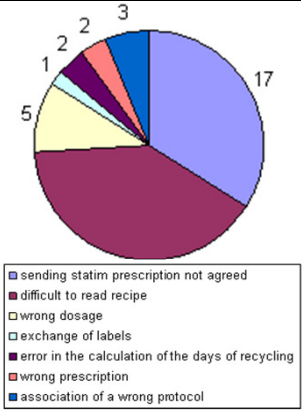
Picture 1. Log monitoring requirements: record layout

ID	Codice scheda Segnalazione	Giorno e Mese	Anno	Livello	Descrizione Livello	Descrizione Evento	Reparto	Indicatore registrazione near miss

Results

A specific register has been established, in which the different causes of near miss were recorded.
Since the register institution (October 2010) up to 15 February 2011, the recorded near miss cases were 50, classified by event as follows:
- sending statim prescription not agreed (17 cases)
- difficult to read recipe (20 cases; for one of them has been completed incident reporting form)
- wrong dosage (5 cases)
- exchange of labels (1 case)
- error in the calculation of the days of recycling (2 cases)
- wrong prescription (2 cases)
-association of a wrong protocol (3 cases: trastuzumab 2mg/kg instead of trastuzumab 8mg/kg)

Since November 1st 2011, prescribing informatization has been completed. The Oncosys medical record, after a 18 month validation, is the only prescribing system used at the moment in our hospital (IOV) for oncological therapies. The near miss register implementation is still in progress for a comparative evaluation of pre- and post-informatization data. At present a near miss reduction up to 60% has been recorded.



Conclusions

The recorded near miss cases have stimulated the developement of standardized protocols, computerization of medical records and increased awareness of potential medication errors in the physicians and healthcare staff.
The integration of department pharmacists in a multidisciplinary oncological staff significantly contributes to patient safety, ensuring prescription appropriateness and reduction of medical errors and drug adverse effects. Moreover, cooperation within a multidisciplinary oncological staff enabled the shared setting up of a informatized, complete and safe diagnostic and therapeutic patient path.

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