Regulatory Validation of Prescriptions at a Teaching Hospital: A Multidisciplinary Process

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Background Regulatory compliance of prescriptions is a key aspect of good performance of pharmaceutical validation within the hospital. Several irregularities have been detected in daily practice.

Purpose Estimate the nature and prevalence of irregularities in prescriptions at a teaching hospital’s pharmacy in order to establish an action plan.

Material and methods A one-day study (October 2017) conducted on all (out/in) patients’ prescriptions at the teaching hospital. The patient registration number was verified systematically via a dedicated software ADMIS.

The quantitative and qualitative analysis of prescriptions was done via SPSS software v23. The analysis of multivariate data was made by Kiviat Diagrams.

Results The analysis was based on 590 prescriptions, of which 393 were from the external pharmacy and 197 from hospitalised patients.

The prescriptions were completely delivered in 80% of the cases. Ninety-five per cent of the validated prescriptions pharmacologically were from the hospitalised services against 73.7% for prescriptions resulting from the consulting services.

All the prescriptions bore the correct registration number corresponding to the right patient, and treatment duration was present in 100% of the cases.

The non-conformity (absence/ illegibility) was due to the prescriber’s stamp in 11.9%, the date of prescription in 3.1% of cases and the seal of the service in 7.5% of all cases corresponding to 11% of outpatients.

The origin of the non-compliance issued mainly from the haematology department (11.4%), followed by cardiology (10.5%) and endocrinology (8.8%), and in 25% of cases the service was unidentifiable.

This critical analysis of the regulatory aspect allowed us to identify several causes requiring a plan of action, mainly; non-availability of the stamps of some freshly graduated doctors; the ink was not available; superimposition of service and prescription stamps; and forgetting the stamp on the prescription.

Consequently, official letters were sent to all physicians reminding them about regulatory requirements for medical prescribing. An evaluation is planned within a year.

Conclusion Regulatory validation of prescriptions is a preliminary and essential step in pharmaceutical validation. A critical analysis of the irregularities makes it possible to establish a plan of action with specific procedures and proves periodically necessary as an indicator of the good functioning of the system.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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Effectiveness and Use of Off-Label Treatments in a General Hospital


Background The off-label use of drugs is common in a hospital setting. However, some of these treatments have low scientific evidence.

Purpose The study aim was to describe the off-label use of drugs in the hospital and to assess the effectiveness of these treatments.

Material and methods We revised the authorised off-label applications between January 2016 and July 2018. We excluded all the off-label oncology treatments.

Clinical history, date of application, medical service, drug, indication and symptomatic improvement of disease were collected.

We considered effectiveness when the patient experienced improvement in most symptoms related to the disease (total effectiveness) or improvement in some symptoms (partial effectiveness). When the drug was not given for any reason, or the treatment was not finished for toxicity, it was considered not assessable.

Results A total of 84 applications were analysed. The evolution of these was: 32 applications in 2016, 27 in 2017 and 25 in 2018.

The medical services were: neurology (20%), nephrology (17%), digestive (15%), ophthalmology (14%), otorhinolaryngology (6%) and other services (28%).

The most demanded drugs were rituximab (27%, n=23), botulinum toxin A (20%, n=17) and human immunoglobulin (18%, n=15).

The indications for rituximab were: membranous nephropathy (n=5), systemic lupus erythematosus (n=4), Sjögren syndrome (n=2), cryoglobulinemic vasculitis (n=2) and others (n=10).

The indications for botulinum toxin A were: achalasia (n=13), spasmodic dysphonia (n=3) and Frey syndrome (n=1).

The indications for human immunoglobulins were: myasthenic crisis (n=7), autoimmune encephalitis (n=3) and other indications (n=5).

Of all applications (n=84), 15 were not assessable: 10 because the treatment was not administrated and five because of its toxicity.

From all patients with an assessable treatment (n=69), 70% (n=48) experienced symptomatic improvement of the disease: in 48% (n=23) the treatment was totally effective and in 32% (n=25) it was partially effective.

Conclusion There is a high variability in the off-label use of drugs. It is necessary to develop protocols to unify the criteria of use of the most common treatments.

Despite low-level published evidence, the off-label treatments were effective in most patients, so they suppose a benefit for patients with few therapeutic options.

REFERENCES AND/OR ACKNOWLEDGEMENTS

http://www.mdpi.com/1660-4601/12/6/358/pdf

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Time to Perform Medication Reconciliation at Admission in a Neurology Unit: Comparison Between Proactive and Retrospective Processes

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Background Medication reconciliation (MR) at admission is a multidisciplinary process which aims to ensure hospital
prescriptions. MR consists in obtaining the complete and accurate list of medications taken by the patient at home, the best possible medication history (BPMH), then using BPMH to ensure the medication order. Two approaches are possible: retroactive when BPMH is produced and considered after the prescription is written; and proactive when BPMH is produced before and is considered in the initial prescription. Proactive MR is promoted as a safer approach, but the lack of human resources is often presented as a major limiting factor to set it in practice.

**Purpose** Thus, the aim of our study was to determine which approach was the most time-effective.

**Material and methods** We conducted a single-centre prospective study between June and October 2018. Patients over 65 years old, hospitalised in a neurology unit in a university hospital were included, and randomly assigned to either the proactive or retroactive group (ratio:1:1).

We measured:
- The delay between patient’s entry and the completion of MR.
- Time spent to perform each step of the process (working time).
- The delay between patient’s entry and first prescription.

In all cases, we compared BPMH to the first hospital prescription, and recorded unintentional medication discrepancies (UMD).

**Results** Sixty patients were enrolled in the study. The two groups were comparable in terms of demographics and number of medications in BPMH. In the proactive group, we measured:
- A significant decrease in the delay between patient’s entry and the completion of MR (3.0±1.8 h vs 13.7±14h, $P<0.0001$).
- No difference in working time (26.6±9.3 min vs 30.1±10.3 min, $P=0.17$).
- No difference in the delay between patient’s entry and first prescription (2.4±1.1 h vs 2.4±2.0h, $P=0.96$).
- A significant decrease in the number of patients with at least one UMD (13.3% vs 73.5%, $P<0.0001$) and the average number of UMD per patient (0.3±0.7 vs 1.8±1.7, $P<0.001$).

**Conclusion** We demonstrated that proactive MR improved the delay of MR, without increasing the working time nor delaying the time of first prescription. We confirmed that proactive is safer than retroactive in a neurology unit.

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