# Study on the Factors for Reporting Nosocomial Infections in Hospitalized Patients

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#### **Abstract**

Reporting nosocomial infections (NI) is a goal of alert and awareness, and an essential link in the current policy of controlling health risks.

From the health professionals and health authorities point of view, the reporting objectives are to set up an alert system allowing the quick detection of unusual INs, and to verify, if necessary, that corrective mesures are implemented

The present study did not fail to highlight a set of factors influencing the non-reporting of (NI) among the caregivers at El Idrissi Hospital in Kenitra, namely: a) personal factor, b) organizational factors and, c) institutional factors

The NI reporting plays an important role in the prevention of infectious risks, in the improvement of the quality of care. Thus, it would be intersting to examine the factors related to the non-reporting of NI

**Keywords:** factors, reproting of NI, quality and safety of care, El Idrissi Hospital Kenitra.

#### Introduction

Nosocomial infections represent a growing global public health issue, in view of the increasing population, the increasing frequency of immunodeficiences, the appearance of new microorganisms and the increase in bacterial resistance to antibiotics. Prevention and surveillance of NI, which require the involvement and investment of all stakeholders on a daily basis, are, today, the best weapon available to healthcare organizations to control them.

In France, the national prevalance survey of NI in 2016 involving 2337 health establishments and a population of 358353 patients, showed an overall rate of 4,97% <sup>(1)</sup>.

In Morocco, the results of a national prevelance surver conducted in 1994 on an expanded sample of 24 hospitals revealed a prevelence of 5% in provincial hospitals, 10% in regional hospitals and reached 11% in national hospital structures <sup>(2)</sup>. Therfore, the awarness of the importance and the seriousness of the NI is very recent. Thus, a delay has been registered in the surveillance, the reporting and the prevention of NI which remain an unknown problem and are not perceived as a priority within hospitals<sup>(3)</sup>.

# **Object**

The present study aims to explore and to describe the factors inducing the non-reporting of nosocomial infections by the nursing stuff at the care units of El Idrissi Hospital in Kenitra.

# Methodology

In order to collect the necessary data from the selected population by the sampling, the authors recommanded to use a questionnaire adressed to caregivers to gather necessary data to get an overview meeting the objectives previously determined.

The survey through questionnaire is an observation tool that quantifies and compares data. This data is collected from a representative sample of the population targeted by the evaluation. 165 people.

#### II. Presentation and discussion of the study results the interest of reporting:

Table N°1: the interest of reporting

| The interest of reporting                 | %   |
|---|-----|
| An application of a ministerial note      | 0%  |
| A risk management measure related to care | 84% |
| A necessity to nursing practice           | 86% |
| A regulatory obligation                   | 8%  |

84% of participants consider reporting the most important step for successful NI management, and is a risk management measure related to care. For 68%, it's a necessity for caregiving which confirms the importance of activities related to reporting. In fact, mastering this practice will lead to mastering NI surveillance, a cornertone of care quality. Therfore, the NI reporting is an indispensable link in the policy of nosocomial infection's control. As detected, the reporting is closely linked to the human nature, the latter can be influenced by an awarness campaign boosted by training sessions to prevent health risks.

In Fance, NI reporting is a legislative obligation and an alert and vigilance system put in place in August 2001<sup>(4)</sup>, which specifies that every doctor, nurse, pharmacist, densits, midwife or member of the paramedical staff who notices one or more cases of infections must report them to the doctor in charge of the service where the cases have been detected and to the operational hygiene team (OHT). 64% of the surveyed

hospital staff share this same finding.

Factors linked to caregivers:

In one hand, health professionals consider that the official definition of NI is difficult to operationalize, which makes it difficult to expore the responsible factors. According to 70%, reporting characteristics are difficult to identify and that the definition remains imprecise and vague, offering conductive conditions to indecision and produces, therfore, a non-report.

On the other hand, the non-reporting of NI by health personnel is a known fact all over the world according to a survey carried out on the perception of the NI reporting and which has disclosed several reasons gathered in the reluctance encountered within the establishment: fear of punishment, of prosecution and fear for branding <sup>(5)</sup>.

The results of the present study confirm what has already been written (reluctance to report), 76% of careres noted that this reluctance is dur to fear of

punishment and prosecution, and 66% ave a fear of branding.

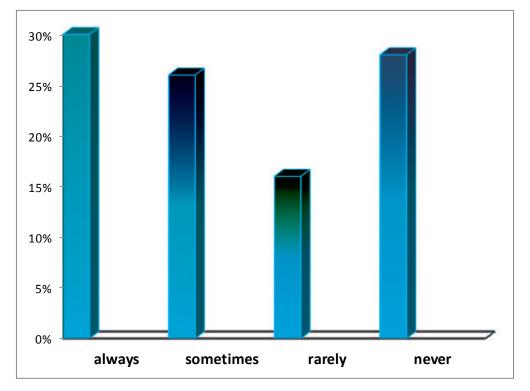


Figure 1: Perception of non-reporting and the absence of IN

However, according to the population under study, non-reporting is still linked to the real absence of NI for 30% and sometimes for 26%. The reporting of these infections is an essential link in the policy to combat INI.

Its implementation in a health institution will contribute to improving the awarness of health

professionals to prevent health risks and coordinate between the different actors, identifying practices that do not comply with the recommandations and standards, detecting unusual infectuous events, not covered by usual surveillance network, and to complement NI surveillance.

# Causes of non-reporting and these consequences

Table 2: Consequences in the event of non-reporting

| Consequences                                  | %    |
|---|------|
| High economic cost                            | 56 % |
| Outbreak of epidemics                         | 44%  |
| Development of multi-resistant bacteria       | 64%  |
| Emergence of healthcare-associated infections | 48%  |

The consequences according to the participants in the study can be economic 56%, and health Development of multi-resistant bacteria 64%, emergence of infections 48% and outbreak of epidemics 44%.

As a result, any detected NI should be limited by mesures and precautions in order to stop its spread, therfore, any infetion unreported to the operational hygiene team (OHT) will escape these preventive mesures and precautions, therby causing adverse economical and social consequences for those who are cared for, caregivers and health establishments.

In Morocco, despite the creation of the CLIN (committe for the fight against nosocomial infestions)

within hospitals (ministerial circular N°54/2008), the constitution of an EOH and the designation of a correspondant in hygiene, or a referent, at helath care units level, the dissemination of information in case of a NI remains marked by heterogeneity in the declarations since the regulatory texts obliging the declaration and the reporting of NI are not yet available<sup>(3)</sup>.

On the other hand, the non-reporting of NI by health personnel is a known fact all over the world according to a survey carried out on the perception of the NI reporting and which has disclosed several reasons gathered in the reluctance encountered within the establishment: fear of punishment, of prosecution and fear for branding<sup>(5)</sup>.

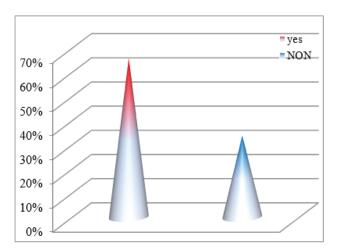


Figure 2: Fear in case of reporting for the service image

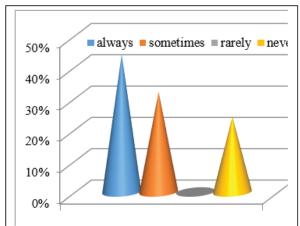


Figure 3: Fear of punishment and prosecution

The results of the present study confirm what has already been written (reluctance to report), 76% of careres noted that this reluctance is dur to fear of punishment and prosecution, and 66% ave a fear of branding.

The absence of intervention by the superiors has only brought effervescence to the existing situation, a developpement of a culture of taboos in the health sector which pushes us to question the way to resolve a problem not yet identified, as well as the non-reporting of 68% of participants when facing a NI.

# **Organizational factors:**

This non-reporting remains a worrying situation by those in charge because it does not allow to specify the actual frequency of NI. Synthesis is made difficult by a set of brakes raised during NI reporting, namely: (a) uncertainty as to the accountability and (b) lack of information and training of professionals on the need to report NI and reporting procedures<sup>(6)</sup>.

#### III. Staff training on reporting

Figure 4: continuing training on reporting nosocomial infections

84% did not receive continuous training in the reporting. Similarly, the survey conducted on the perception of nosocomial infection reporting by the South-West Coordinating Center for the Control of Nosocomial Infections (CCCNI) in 2006 revealed a range of reasons for not reporting, namely: (a)the lack of training of actors (mainly doctors) on nosocomial infections (NI), and (b) the lack of professional awareness of reporting. These studies confirm the results of our study, which highlighted the lack of basic and continuing training, as 88% did not have an initial training On one hand, it is necessary to identify, to recognize the object to report, from where the interest of the basic training. On the other hand, the development of the knowledge and the better management of the infectious risk will be dispensed by a complementary training in order to correctly interpret and identify the causes responsible for a detected NI.

#### **Facteurs institutionnels**

The hospital hygiene establishment policy is the main component of success of any system aiming the regression of NI and the security of care, that's why NI reporting must be included in the establishment priorities, especially since most international writings relate to hospital hygiene policy with the aim of improving quality and enhancing the safety of care, health care institutions need to move towards a clear policy on hospital hygiene and prevention that will focus on the development of action plans for contextual risk management and monitoring involving all stakeholders.

In the same context, many authors point out that uncertain protection and the aspects of legal protection of the reporting have been particularly studied and implicated in the non-reporting. Health professionals want to protect themselves from justice following complaints from victims (the patients) and the sanction of their immediate hierarchy<sup>(7)</sup>. The results of the present study have shown that the non protection of the reporting was evoked by 58 % of participants against 42%.

In the same perspective, the reasons for non-reporting are related to the fear of external control. This situation can be the subject of media coverage, sometimes even exploited by user associations and provoke an audit or external control of the general management, indirectly it can reproache the reporting professionals. Therefore, to

avoid these judgments, they prefer not to report <sup>(8)</sup>. This finding, related to the fear of an external control, was evoked by 76% of the participants in the study.

Suggestions of the participants in the questionnaire:

Participants proposed a number of suggestions for improving the practice of reporting, namely:

- Ø To sensitize the hygiene professionals and correspondents on their responsibility in the field of fight against the infectious risks.
- Ø Provide continuing training as needed and during each incident.
- Ø Display the reporting procedures and protocols at the different units.
- Ø Adopt a permanent potential for support, based on the obligation to report.
  - Ø Guarantee protection of reporting professionals

# Conclusion

NI reporting is a useful warning tool. However, progress still needs to be made to make the internal reporting circuits really operational. The development of a specific, accessible and simple computer tool is essential. In addition, the role of CLIN is seen as a positive help. Reporting a NI is part of a more comprehensive approach to transparency and risk management in health facilities which requires a major change in mentalities.

In France this device has proven itself (control of regional epidemics, national recommendations of good practices ...), at the national level, it is now necessary to extend the training around reporting and to convince the

This system should be based on risk management, evaluation, traceability, transparency, collective responsibility and pooling of experiences.

Thus, we should understand non-reporting to situate it in a larger set, find levers to develop adherence to the quality-safety approach to care and overcome the issue of behavioral change.

#### **Ethical Statement**

reluctant.

To ensure the success of our study, a set of ethical

considerations were met, namely:

- Ø Obtaining prior authorization from the establishment direction.
- Ø Build trust with the participants of the study with regard to the confidentiality and the anonymity of the questionnaire and the self-determination interest.

In this context, respect to self-determination is achieved through the free and informed consent of all participants, and this, after explaining a) the content and the purpose of the study, b) its advantages, c) the possibility of withdrawing from the study at any time

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