

**Simple Safe Practices  
recommended by government  
agencies for Adverse Event (AE)  
prevention in hospital patients**

*Summary*



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE SANIDAD  
Y CONSUMO

Plan de **Calidad**  
para el **Sistema Nacional**  
de Salud



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This study has been conducted by ANTARES Consulting through a contract with the Spanish Ministry of Health and Consumer Affairs.

This publication should be cited as: Simple Safe Practices recommended by government agencies for Adverse Event (AE) prevention in hospital patients. Summary. Madrid: Ministerio de Sanidad y Consumo; 2008.

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# **Simple Safe Practices recommended by government agencies for Adverse Event (AE) prevention in hospital patients**

## ***Summary***

December, 2007

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# 1 Introduction and objectives

In Spain, the nationwide adverse events study (ENEAS), inter alia, played an important part in clarifying the present patient safety situation in Spanish hospitals.

Among many other aspects, it provided objective information on the most prevalent types of adverse events (AE) in Spanish hospitals and determined which of these events may be most easily prevented.

Similar studies have been conducted in other countries, and patient safety is fast becoming a clear priority area in government policy. This is reflected in the increasing number of government policies and guidelines recommending **Safe Practices** aimed at preventing AE, especially in the hospital setting.

In this context, it is essential to continue to conduct studies reflecting the real situation in Spain.

However it is also important to analyse the measures being taken and the specific recommendations (Safe Practices) being issued in other countries, to identify reference points and put their learning curves and experience to use in the Spanish setting.

## Design of study

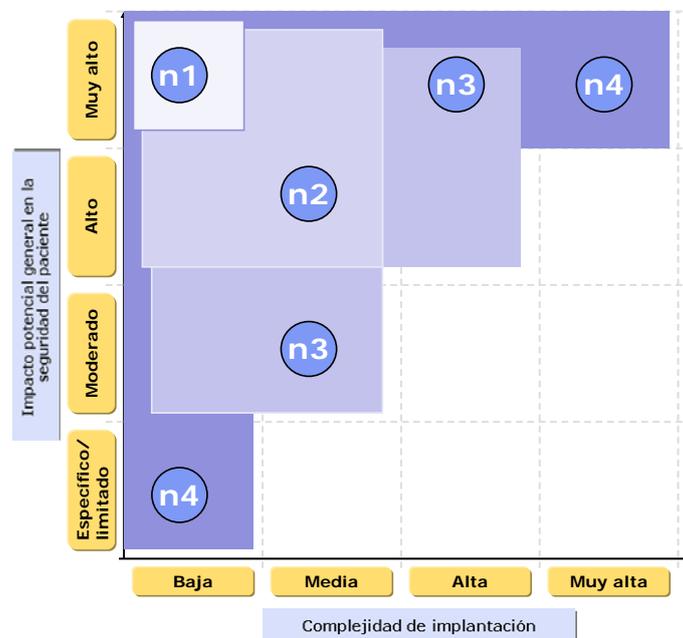
Hence this review of “Simple Safe Practices” recommended by government agencies for Adverse Event (AE) prevention in hospital patients, which aims, inter alia, to:

- Identify Safe Practices for AE prevention in hospitals nationwide promoted by government agencies in selected countries and by the World Health Organization (WHO).
- Describe each of these Safe Practices, comparing their potential impact on AE prevention and their implementation complexity.
- Prioritise the Safe Practices identified according to the balance between impact and implementation complexity.

## 2 Methodology

The bibliographical review was conducted in four stages:

1. **Selection of countries and organisations included and of relevant data.** The countries selected were the USA, the United Kingdom, Canada and Spain, in addition to the WHO, with a wide-ranging review of both primary and secondary data sources.
2. **Definition of selection criteria of documents located.** An operating definition of “**Safe Practices** against Adverse Events (SPAE)” was established and applied and the relevant content selected.
3. **Evaluation of each Safe Practice against Adverse Event (SPAE).** Each SPAE identified was evaluated in terms of “implementation complexity” and “potential impact on patient safety”, in accordance with specific criteria and evaluation ranges.
4. **Identification of Simple Safe Practices:**
  - a. On the basis of the criteria established, Simple Safe Practices were defined as “**Safe Practices**” against Adverse Events with **low implementation complexity** and **high general potential impact on patient safety**.
  - b. In line with this definition and corresponding parameters, the SPAE identified were classified into four groups of Simple Safe Practices, as shown in the following SPAE matrix:



5. **Validation of results with panel of experts.** A workshop was organised with a panel of experts selected by the Ministry of Health and Costumer Affairs (MSC) to validate the methodology used and the results obtained and undertake joint and consensus reflection using Nominal Group Technique to determine:
  - a. The chief barriers to be overcome for implementation of simple safe practices in Spanish hospitals.
  - b. In light of the barriers identified, the key initiatives to be promoted by the MSC to facilitate implementation of simple safe practices.



## Simple Safe Practices

- 01 - Single use of injection devices
- 02 - Improve hand hygiene
- 03 - Influenza vaccinations for workers and patients
- 04 - Measures to prevent central venous catheter-related infections
- 05 - Measures to prevent ventilator-associated pneumonia (nosocomial pneumonia)
- 06 - Measures to prevent surgical site infections
- 07 - Colour coding of cleaning materials and equipment to prevent infections
- 08 - Measures to control performance of correct procedure at the correct body site
- 09 - Measures to ensure correct communication during patient handovers
- 10 - Patient identification
- 11 - Measures to prevent catheter and tubing misconnections
- 12 - Evaluation of risk of development of pressure ulcers
- 13 - Evaluation of risk of thromboembolism
- 14 - Monitoring and supervision of patients on long-term anticoagulant treatment
- 15 - Use of protocols to assess patients at risk in the case of tests with contrast that may lead to renal failure
- 16 - Measures to ensure that written information on terminal patients' wishes is highlighted in their care records
- 17 - Measures to ensure that all care received by patients is provided by competent, trained and, where appropriate, certified professionals
- 18 - Measures to ensure safety of patients with latex-related allergies
- 19 - Precautionary measures when physically containing or immobilising patients
- 20 - Recommendations to prevent confusion between look-alike, sound-alike medication names
- 21 - Measures to ensure medication accuracy at transitions in care
- 22 - Measures to identify all high-risk drugs and establish policies and procedures for their use
- 23 - Measures to ensure prevention and correct treatment of surgical procedure related acute myocardial infarction
- 24 - Promotion of safety measures for oral or enteral drug administration
- 25 - Measures to promote safe use of injectable or IV administered drugs
- 26 - Measures to ensure effective evaluation of A&E trauma patients
- 27 - Measures to prevent suicide in hospital patients
- 28 - Rapid response teams for critical patients

### - Validation with Panel of Experts:

- On 8<sup>th</sup> November 2007 a workshop was organised in MSC premises, attended by 21 experts from different regions of Spain, ranging from primary and specialist care nursing staff to representatives of 14 medical scientific associations.
- In the view of these experts, the 11 chief barriers to be overcome for implementation of Simple Safe Practices in Spanish hospitals are:

<b>BARRIERS</b>
Resistance to change
Limited channels, means and/or levels of interaction for transfer of information and communication
Scarcity / limited availability of human resources
Limited economic resources and / or infrastructures
Deficient coordination between levels
Poorly developed risk / safety culture
Lack of management leadership in favour of Patient Safety and Safe Practices
Asymmetrical and / or improvable clinical management development
Insufficient training
Lack of active involvement of healthcare providers in Patient Safety optimisation
Lack of integration of risk management and safe practices in general hospital management

- The barriers identified were prioritised according to their degree of feasibility<sup>1</sup> and importance<sup>2</sup>.
- A consensus expert view was reached on recommendations on what would be the key initiatives to be promoted by the MSC to overcome each of these barriers in Spanish hospitals.

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<sup>1</sup> Feasibility: in relative comparative terms, according to which would be the “easiest” barriers to overcome in the present context of Spanish hospitals.

<sup>2</sup> Importance: in relative comparative terms, according to which would be the most important barriers to overcome for implementation of Simple Safe Practices.

## 4 Conclusions

### 4.1 General summary

Four main conclusions were reached (each discussed in more detail in section 4.2):

#### 1. Identification and analysis of Safe Practices for Adverse Event Prevention (SPAE) in hospitals recommended by government agencies in four countries and the World Health Organization (WHO) *(see details page 13)*.

This enabled us to verify that hospital-targeted SPAE are in common use in the countries analysed, and to identify 28 specific Safe Practices that sum up the initiatives taken.

These 28 SPAE were analysed from two main perspectives:

- Their “general potential impact on patient safety” in the Spanish setting, basing this analysis on the results of the ENEAS study.
- Their “implementation complexity”, on the basis of the following five criteria:
  - o Material resources necessary.
  - o Specific human resources necessary.
  - o Number of care services to be coordinated.
  - o Training and learning needs.
  - o Impact on organisation.

#### 2. Determination, on the basis of the methodology used, of Simple Safe Practices for Adverse Event Prevention (SPAE) in hospitals *(see details page 14)*.

We were thus able to determine, from among the 28 SPAE identified, those which are genuinely “simple”, i.e. those which, in addition to being clearly important in terms of potential positive impact on prevention of the most prevalent Adverse Events in Spain, are also easy to implement (low “implementation complexity”).

Having established four main groups (levels) of SPAE, we were able to specifically determine, for example, the five (level 1) SPAE with the highest potential impact on AE prevention and the lowest implementation complexity.

This information will prove invaluable when it comes to the question of “where to start”.

3. **Expert consensus on the main barriers to implementation of Simple Safe Practices in Spanish hospitals** (*see details page 15*).

Having identified the most appropriate Simple Safe Practices for the Spanish hospital setting, the next step was to determine the barriers to effective implementation of these measures in Spanish hospitals.

A group of 21 experts was designated by the MSC for this purpose. Basing their reflections on the information generated at the earlier stages of the study, they reached a consensus on the 11 main barriers and grouped them into three priority levels.

Accordingly, decision-makers now have information not only on the SPAE with which to start, and on the order to follow, but also, for example, on the four (priority 1) barriers on which to concentrate their efforts from the start.

4. **Expert recommendations on the key initiatives to be promoted by the MSC to overcome these barriers** (*see details page 16*).

Lastly, the panel of experts took one further step: placing themselves in the MSC's shoes, they formulated for the different barriers identified a series of specific recommendations on possible initiatives to be taken by the Ministry.

Thus answers were provided to all the following questions:

- **Which Safe Practices for AE Prevention (SPAE) in hospitals have been effectively promoted in the countries studied?**
- **Which of these SPAE are most relevant to the Spanish hospital setting?**
- **Which are Spain's Simple Safe Practices? Which should be targeted first?**
- **What are the barriers to implementation of these Simple Safe Practices in Spanish hospitals?**
- **Which of these barriers should be the key target?**
- **Specifically, what could the MSC do to effectively encourage all these efforts?**

## 4.2 Details

### 1. Identification and analysis of Safe Practices for Adverse Event Prevention (SPAE) in hospitals recommended by government agencies in four countries and the World Health Organization (WHO).

Cases studied: Spain, Canada, UK, USA and WHO

28 SPAE identified and analysed from two perspectives:

“General potential impact on patient safety”

Specific/limited impact: **3 SPAE**

Moderate impact: **8 SPAE**

High impact: **8 SPAE**

Very high impact: **9 SPAE**

“Implementation complexity”

Low complexity: **11 SPAE**

Medium complexity: **7 SPAE**

High complexity: **10 SPAE**

Very high complexity: **0 SPAE**

- A detailed description of each of the SPAE according to the methodology applied was included (see example below), as well as the corresponding documentary references.

## 9 Medidas para la correcta comunicación durante el traspaso de informaciones sobre la salud de los pacientes

**Definición**

Acciones, procedimientos y políticas para garantizar un correcto traspaso de informaciones sobre la salud del paciente. El traspaso puede darse entre profesionales, entre profesionales-pacientes, entre profesionales-organización y entre organización-organización.

País	Organización	Política
QMS		Situaciones para la seguridad del paciente – Situación 3 – Comunicación durante el traspaso de informaciones sobre la salud de los pacientes <sup>1</sup>
EEUU	The National Quality Forum	Prácticas seguras para mejorar la atención a salud – Prácticas seguras 2, 4, 8, 9, 11 y 24 <sup>2</sup>
Reino Unido	Agencia Nacional de la Seguridad del Paciente	Notas de práctica segura – N10 – Comunicar al paciente o su cuidador sobre lo ocurrido al paciente durante su tratamiento <sup>3</sup> y N16 – Pronta identificación de fallos de actuación basados en informes de imágenes radiológicas <sup>4</sup>

Variable	Complejidad de Implementación NA Bajo Alto	Observación
Recursos Materiales Necesarios	✗	• Nuevo proceso de traspaso de informaciones que requieren el soporte en TICs, • Tecnología de información y comunicación para asegurar eficacia y fiabilidad.
RRHH Específicos Necesarios	✗	• Profesionales sanitarios con formación específica en comunicación efectiva de informaciones sobre el paciente.
IP Servicios Asistenciales a Coordinar e Implementar	✗	• Admisión, Farmacia, Radiología convencional y (materno-infantil), UCI, Urgencias, Diagnóstico y Laboratorio.
Necesidad de Formación y Aprendizaje	✗	• Formación en comunicación efectiva durante el traspaso de informaciones sobre los cuidados del paciente, según los instrumentos que se usen (TICs, etc.) requiere formación específica.
Impacto en la Organización	✗	• Admisión y Monitorización de paciente, Administración de medicamentos y Entrega de resultados de pruebas diagnósticas.

Variable	Impacto	Observación
Impacto Potencial (General en la seguridad del paciente)	+++++	• EA's relacionados con medicamentos o lesiones físicas, con el diagnóstico o pruebas diagnósticas, con una valoración del estado del paciente, con procedimientos o observación radiológica y otros.

\* La PSEA influye sobre diferentes EA's cuyo acurrido de prevalencia y evitabilidad lo actual en el tipo más alto de impacto potencial general en la seguridad del paciente.

### Posición relativa

Legend: PSEA (red line with squares), Ideal (green dashed line with diamonds)

### Referencias

- 1: OMS, 2007.
- 2: The National Quality Forum, 2006.
- 3: National Patient Safety Agency, 2005.
- 4: National Patient Safety Agency, 2007.

## 2. Determination, on the basis of the methodology used, of Simple Safe Practices for Adverse Event Prevention (SPAE) in hospitals.

Correlation of the two perspectives enabled us to determine four levels of implementation recommendations:

### Level 1

Very high impact & low implementation complexity: **5 SPAE**

- 02 - Improve hand hygiene
- 03 - Influenza vaccinations for workers and patients
- 05 - Measures to prevent ventilator-associated pneumonia (nosocomial pneumonia)
- 06 - Measures to prevent surgical site infections
- 07 - Colour coding of cleaning materials and equipment to prevent infections

### Level 2

High impact & medium complexity: **8 SPAE**

- 01 - Single use of injection devices
- 04 - Measures to prevent central venous catheter-related infections
- 22 - Measures to identify all high-risk drugs and establish policies and procedures for their use
- 23 - Measures to ensure prevention and correct treatment of surgical procedure related acute myocardial infarction
- 24 - Promotion of safety measures for oral or enteral drug administration
- 08 - Measures to control performance of correct procedure at correct body site
- 25 - Measures to promote safe use of injectable or IV administered drugs
- 19 - Precautionary measures when physically containing or immobilising patients

### Level 3

Moderate impact & medium complexity or high impact & high complexity: **8 SPAE**

- 20 - Recommendations to prevent confusion between look-alike, sound-alike medication names
- 21 - Measures to ensure medication accuracy at transitions in care
- 09 - Measures to ensure correct communication during patient handovers
- 10 - Patient identification
- 12 - Evaluation of risk of development of pressure ulcers
- 13 - Evaluation of risk of thromboembolism
- 16 - Measures to ensure that written information on terminal patients' wishes is highlighted in their care records
- 18 - Measures to ensure safety of patients with latex-related allergies

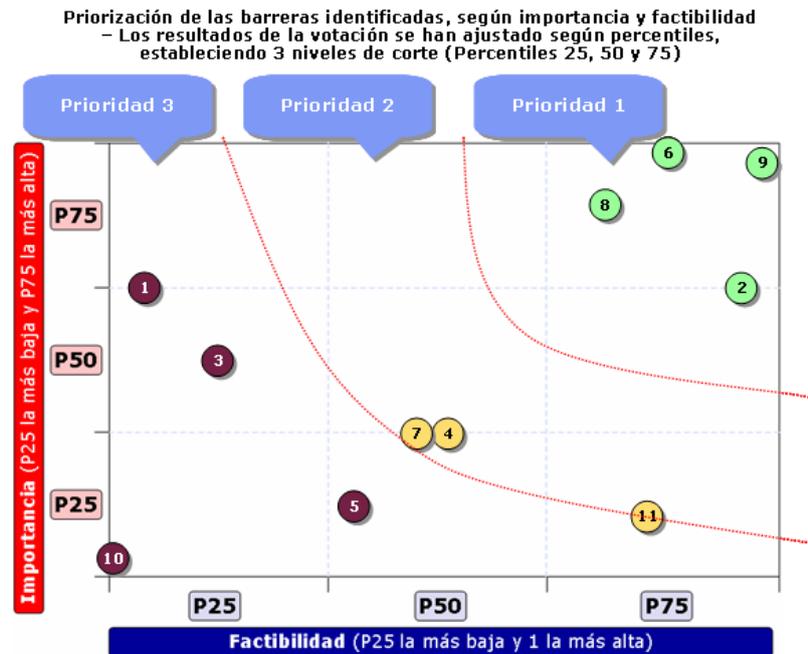
### Level 4

Limited impact & low complexity or very high impact & very high complexity: **1 SPAE**

- 26 - Measures to ensure effective evaluation of A&E trauma patients

### 3. Expert consensus on the main barriers to implementation of Simple Safe Practices in Spanish hospitals.

- Following identification of the main barriers, three priority levels were established and the barriers were thus segmented into three main groups to determine which should be targeted first (Priority 1).



Priority 1 barriers: High importance & feasibility

- Insufficient training
- Poorly developed risk / safety culture
- Asymmetrical and / or improvable clinical management development
- Limited channels, means and/or levels of interaction for transfer of information and communication

Priority 2 barriers: Moderate importance & feasibility

- Limited economic resources and / or infrastructures
- Lack of management leadership in favour of Patient Safety and Safe Practices
- Lack of integration of risk management and safe practices in general hospital management

Priority 3 barriers: Low importance &/or feasibility

- Deficient coordination between levels
- Scarcity / limited availability of human resources
- Resistance to change
- Lack of active involvement of healthcare providers in Patient Safety optimisation

#### 4. Expert recommendations on the key initiatives to be promoted by the MSC to overcome these barriers.

- Recommendations for Priority 1 barriers:

##### **Priority 1 barriers:**

##### **High importance & feasibility**

##### Insufficient training

Organise information campaigns with special emphasis on the non-punitive nature of clinical safety. CRITICAL: Overcome culture of "fear".

Commissions could participate in the design of these plans / programmes.

Include healthcare professionals starting their training (recent medical and nursing graduates, etc.) in these programmes.

Include clearly positive messages for the measures designed to overcome the "culture of fear of reporting / admitting errors".

Insufficient encouragement / obligation for healthcare professionals to commit to the Patient Safety culture.

##### Poorly developed risk / safety culture

MSC to prioritise promotion / coordination of initiatives through the Interterritorial Board.

Promote, drive, motivate leadership, targeting:

Unification of criteria.

Encouragement of active participation and collaboration by all concerned.

Benchmarking of results and achievements in regions and scientific societies.

Promotion of specific programmes.

Reinforce training in management of culture changes and changes in mentality and practice, with special focus on process handling, teamwork, etc.

Coordinate training to establish a basic uniform level (help to set standards and base criteria) and direct training at a wide range of healthcare sector professionals.

Promote continued training in this respect and use / develop communication tools: means of communication, introduction of integrated IT systems for all regions, etc.

##### Limited channels, means and/or levels of interaction for transfer of information and communication

Make information on Adverse Events available, placing it on the MSC website and sending it to the regions for distribution to organisations and, especially, healthcare professionals.

Encourage the flow of specific resources to this end.

##### Asymmetrical and / or improvable clinical management development

- Recommendations for Priority 2 barriers

**Priority 2 barriers:**  
**Moderate importance & feasibility**

Lack of management leadership in favour of Patient Safety and Safe Practices

Measures designed to create interest, reward attitudes, encourage actions ...

Leadership "groups" should be encouraged on vertical and horizontal lines:

**Vertical:** 2-way relationship between regional authorities, area management, hospitals, primary care, encouraging leadership down from the regional to the local level (leadership ladder).

**Horizontal:** for same-level sharing and exchange of experience and knowledge (between hospitals, authorities, area management, etc.), both within and between regions.

This implies marketing moves (to reinforce interest), rewards, incentives ...

Training scholarships, recognition of best practice, good process management (to be well identified).

Encourage formulation of specific indicators for integration in management structures and even within the framework of programme contracts or similar control and development instruments. Specific and results-based design.

Lack of integration of risk management and safe practices in general hospital management

Limited economic resources and / or infrastructures

General reflection: Not so much a problem of funding as of efficient and effective management of funds.

The MSC should encourage the possibility of investing funds in more studies designed to enhance the training culture and improve "measurement" and impact of results.

- Recommendations for Priority 3 barriers:

**Priority 3 barriers:**  
**Low importance &/or feasibility**

Deficient coordination between levels

Set guidelines and provide advice at three levels: healthcare professionals, patients and care.

All these agents (healthcare professionals, patients and care levels) should feel identified in the MSC-promoted campaigns, creating a sense of mutual and shared commitment, a sense of team.

Encourage the development of multidisciplinary committees for each level (Ministry, regions, hospitals, etc.) similar to those established for this expert workshop.

Scarcity / limited availability of human resources

Formulate basic rules for standardisation of workforce and encourage creation of recognition systems for best practice.

Encourage process management development.

### Resistance to change

Motivate / encourage design of specific training programmes and definition of clear rules (for adverse event prevention) to be included in centre AE prevention manuals.

Design incentive programmes for hospitals that implement or make positive progress towards implementation and effective integration of a risk prevention culture.

Based on information that serves as feedback and optimises management in this respect.

Reward all those who establish quality commissions and/or risk units in their hospitals.

### Lack of active involvement of healthcare providers in Patient Safety optimisation



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