

#### EVIDENCE-BASED CLINICAL FELLOWSHIP PROGRAM (EBCFP)

April 2022 edition

#### **EDICIÓN ABRIL**

- Fall assessment and intervention among community-dwelling elderly in a primary health care centre.
   María García
- Postoperative pain management among adults in an Special Care Unit of a primary Hospital : a best practice implementation Project. Silvia Ruiz
- Suitability of PICC management according to pharmacological therapy. Marta Ferraz-Torres
- Promoting Sleep And Rest During pediatric Hospitalization in a third level Hospital. Carolina Lechosa
- Patency, assessment and management of central catheter occlusion in adult patients in the intensive care unit. **Paula Marqués**



#### EVIDENCE-BASED CLINICAL FELLOWSHIP PROGRAM (EBCFP)

Project Title: Fall assessment and intervention among community-dwelling elderly in a primary health care centre: a best practice implementation project

Participants Name: María García Fernández Organization: Health Service of the Principality of Asturias

### Introduction

- Falls and fall-related injuries are common in community-dwelling older people and increase exponentially with age. Approximately 30% of people over 65 years and 50% over 80 years living in the community experience a fall at least once a year.
- Multifactorial fall prevention programs for the elderly in primary health care is an important approach to improve public health in Asturias as falls are the first external mortality cause of death in people aged 65 or older and its population is the most aged in Spain.
- Interventions need to target factors such as mobility, strength, gait, medicine use and hazards within the home environment.



Elaboración basada en datos del INE, CMBD. 2011

Ministerio de Sanidad, Políticas Sociales e Igualdad. Documento de consenso sobre prevención de fragilidad y caídas en la persona mayor. Estrategia de promoción de salud y prevención del SNS. Madrid: MSPSI; 2014.

Redondo M, Mondéjar E, Quirós JR. Ranking de principales causas de muerte por edad, sexo y área en Asturias. Mortalidad 2018. Infosan (España); Diciembre 2019. 19 p

#### **Audit Question**

 Does an evidence-based implementation project improve fall assessment and interventions among communitydwelling older people in a primary healthcare setting?



# **Aims and objectives**

The aim of this evidence implementation project is to promote evidence-based healthcare and improve local practice in regards to fall risk screening and multifactorial fall prevention strategies in the elderly in a primary health care setting.

The specific objectives of the project are:

- To determine current compliance with fall assessment and intervention best practice recommendations.
- To identify barriers and enablers to achieve compliance to best practice standards and to desing and implement strategies to address non-compliance areas.
- To increase staff knowledge regarding best practice on fall assessment and intervention.
- To reassess changes in local practice after implementation of best practice recommendations.

#### **Methods**

 Phase 1→To create a project team and undertake a baseline audit by reviewing practice against evidence-based audit criteria using the JBI online tool PACES (Practical Application of Clinical Evidence System).

**Phase 2** $\rightarrow$ Based on the evaluation of the baseline audit results, to identify barriers and facilitators and determine and implement strategies to overcome them using GriP (Getting Research into Practice) matrix, followed by the implementation of changes during six months.

• Phase 3→To undertake a post-implementation follow-up audit to assess improvements achieved after changes have occured. Discussion among the implementation team.







#### Methods – Phase 1

#### PROJECT TEAM

The project team includes nurses from the General Directorate of Healthcare, Humanization and Socio-healthcare of the Health Department of the Principality of Asturias and from the Nursing Management Department of the primary healthcare area where the project will be undertaken, who will be system leaders. As a technical leader, a health technician working in healthcare area management will support and advise the project leader and day-to-day leaders on how to better achieve the objectives of the implementation project. A community nurse as project leader will be resposable for the promotion of the project and control of the process. Three additional community nurses from the Otero healthcare centre as day-to-day leaders.

#### AUDIT CRITERIA

The objective of the baseline audit is to compare the current practices with the best evidence-informed recommendations and to establish the size of the gap between local practices and best practices regarding fall assessment and intervention. Eight criteria based on these best practice recommendations will be evaluated in this project using the JBI-PACES.

#### **JBI Audit Criteria**

- 1) Community-dwelling older people who come in contact with their healthcare provider are asked about their falls history in the previous year.
- Community-dwelling older people who reports falls history in the previous year are asked about frequency, context and characteristics of the fall.
- Community-dwelling older people are screened using a validated tool to determine their falls risk.
- Community-dwelling older people who are at high risk of falls (as identified in the screening), or who present to a healthcare provider due to a fall, undergo a multifactorial risk assessment.
- Community-dwelling older people who are assessed to be at increased risk of falling are offered targeted multicomponent interventions.

- Additional audit criteria Community-dwelling older people who are not at risk of falls and have a TUGT score higher than 11 seconds are provided information about falls and strategies for prevention.
- Falls are clearly documented in the patient's clinical record.
- Fall risk screening is performed by healthcare professionals with appropriate training. 3)
  - Moola, S. Evidence Summary. Falls (Older People): Risk Factors in Community Settings. The JBI EBP Database. 2020; JBI-ES-369-1.
  - Moola, S. Evidence Summary. Falls Risk (Older Person in Community Setting): Risk Assessment. The JBI EBP Database. 2021; JBI-ES-1261-1
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  - Navarro C, Lázaro M, Cuesta F, Vitoria A, Roiz H. Métodos clínicos de evaluación de los trastornos del equilibrio y la marcha. En: Sociedad Española de Geriatría y Gerontología, editores. Grupo de trabajo de caídas de la Sociedad Española de Geriatría y Gerontología: Evaluación del anciano con caídas de repetición. Madrid: Ed. Mapfre; 2001. p. 101-22
  - Bohannon RW. Reference values for the timed up and go test: a descriptive meta-analysis. J Geriatr Phys Ther. 2006;29(2):64-8.

| Audit criterion  | Sample   | Method used to measure percentage compliance with best practice   |
|--|--|---|
| 1. Community-dwelling older people<br>who come in contact with their<br>healthcare provider are asked about<br>their falls history in the previous year.       | Criteria of the indicator: People aged 70 or older<br>living in the community who attend a nurse's<br>primary care consulting room<br>62 randomly chosen patients who met the criteria<br>(period of two months) | Percentage of patients with a record of history of falls in the previous year. Data will be collected from the patient's clinical record.<br>This criterion is met (YES) if "History of Falls" field (yes or no) in Gordon's first functional health pattern (Health Perception and Management) is registered at least once within the last year. |
|  |  | This criterion is not met (NO) if there is no such register in the "History of Falls" field (neither yes or no) within the last year.   |
| 2. Community-dwelling older people<br>who report falls history in the previous<br>year are asked about frequency,<br>context and characteristic of the fall/s. | Criteria of the indicator: People aged 70 or older<br>living in the community who attend a nurse's<br>primary care consulting room and reported a fall<br>in the previous year                                   | Percentage of patients with affirmative answers on the "History of Falls" field<br>who have been asked about frequency, context and characteristics of the fall/s<br>in the previous year. Data will be collected from the patient's clinical record.   |
|  | Randomly chosen patients who met the criteria (period of two months)   | This criterion is met (YES) if there is a register of frequency, context and characteristics of the fall/s in the previous year in the field "Comments" in Gordon's first functional health pattern (Health Perception and Management). This criterion is not met (NO) if there is no such register in the field "Comments".                      |
|  |  | N/A: patients who did not report falls in the previous year.  |

| Audit criterion  | Sample  | Method used to measure percentage compliance with best practice  |
|--|---|--|
| 3. Community-dwelling older people<br>are screened using a validated tool<br>to determine their risk of falling.   | Criteria of the indicator: People aged 70 or older<br>living in the community who attend a nurse's<br>primary care consulting room and provide<br>consent<br>62 randomly chosen patients who met the<br>criteria (period of two months)   | <ul> <li>Percentage of patients with completed falls risk assessment. Data will be collected from the patient's clinical record.</li> <li>This criterion is met (YES) if there is a register in the "History of Fall" field (yes or no) and Time Up and Go Test (TUGT) is registered as performed (&gt;20 seconds "at risk"; &lt;20 seconds "not at risk") in Gordon's first functional health pattern (Health Perception and Management) at least once within the last year.</li> <li>This criterion is not met (NO) if there is no such register in the "History of Fall" field (neither yes or no) and/or Time Up and Go Test score within the last year.</li> </ul>  |
| 4. Community-dwelling older people<br>who are at high risk of falls (as<br>identified in the screening), or who<br>present to a healthcare provider due<br>to a fall, undergo a multifactorial risk<br>assessment. | Criteria of the indicator: People aged 70 or older<br>living in the community who attend a nurse's<br>primary care consulting room due to a fall or<br>who are at risk of falls (as a result of falls risk<br>screening)<br>Randomly chosen patients who met the criteria<br>(period of two months) | <ul> <li>Percentage of patients identified as being at "Risk of Fall" based on the result of the fall screening with the recorded Protocol "Polymedicated patients (2010)" and NIC 6490 (Fall prevention): in Protocol "Nursing Intervention" is registered. Data will be collected from the patient's clinical record.</li> <li>This criterion is met (YES) if Medication review: Protocol "Polymedicated patients (2010)" is completed and NIC 6490 (Fall prevention): in Protocol "Nursing Intervention" is registered.</li> <li>This criterion is not met (NO) if Medication review: Protocol "Polymedicated patients (2010)" is not completed and/or NIC 6490 (Fall prevention): in Protocol "Nursing Intervention" is not registered.</li> <li>N/A: Patients who are not at high risk of fall based on the result of the fall screening or patients who have not been screened.</li> </ul> |

#### **Audit criterion**

5. Community-dwelling older people who are assessed to be at increased risk of falling are offered targeted multicomponent interventions.

#### Sample

Criteria of the indicator: People aged 70 or older living in the community who attend a nurse's primary care consulting room and who are at risk of falls (as a result of falls risk screening)

Randomly chosen patients who met the criteria (period of two months)

#### Method used to measure percentage compliance with best practice

Percentage of patients identified as being at "Risk of Fall" based on the result of their fall screening with a documented falls prevention intervention. Data will be collected from the patient's clinical record.

This criterion is met (YES) if some of the following interventions are recorded:

- Home-based exercise program intervention: NIC 0200 (Exercise promotion) is recorded in Protocol "Nursing intervention".
- Home hazard modification or behavioral counseling intervention. NIC 6486 (Environmental management: security) is recorded in Protocol "Nursing intervention".
- Clinical education or behavioral counseling. NIC 6490 (Fall prevention) is recorded in Protocol "Nursing intervention".
- Medication review. NIC 2380 (Medication management) is recorded in Protocol "Nursing intervention".

This criterion is not met (NO) if none of the previous interventions are recorded in the patient's clinical record.

N/A: Patients who are not at high risk of fall based on the result of the fall screening or patients who have not been screened.

#### ADDITIONAL AUDIT CRITERIA

| Audit criterion  | Sample  | Method used to measure percentage compliance with best practice  |
|--|---|--|
| 6. Community-dwelling older<br>people who are not at risk of falls<br>and have a TUGT score greater<br>than or equal to 11 seconds are<br>provided information about falls<br>and strategies for prevention. | Criteria of the indicator: People aged 70 or<br>older living in the community who attend a<br>nurse's primary care consulting room, who<br>are not at risk of falls and have a TUGT<br>greater than or equal to 11 seconds<br>Randomly chosen patients who met the<br>criteria (period of two months) | <ul> <li>Percentage of patients identified as not being at "Risk of falls" and with a TUGT score greater than or equal to 11 seconds that received verbal and/or written information about fall prevention strategies. Data will be collected from the patient's clinical record.</li> <li>This criterion is met (YES) if there is a register of NIC 6490 (Fall prevention) in Protocol "Nursing intervention".</li> <li>This criterion is not met (NO) if there is no such register in Protocol "Nursing intervention".</li> <li>N/A: Patients who have not been screened or TUGT have not been applied.</li> </ul> |
| 7. Falls are clearly documented<br>in the patient's clinical record.   | Criteria of the indicator: People aged 70 or<br>older living in the community who attend a<br>nurse's primary care consulting room and<br>have fallen within the last 6 months<br>Randomly chosen patients who met the<br>criteria (period of two months)   | <ul> <li>Percentage of fallers with fall episodes registered with CIAP code A29 ("Fall") when required healthcare attendance. Data will be collected from the patient's clinical record.</li> <li>This criterion is met (YES) if every fall episode is registered with CIAP code A29 ("Fall") in faller's clinical record within the last 6 months.</li> <li>This criterion is not met (NO) if there is no such CIAP code in faller's clinical record within the last 6 months.</li> <li>N/A: Patients who have not fallen within the last 6 months</li> </ul>   |
| 8. Fall risk screening is<br>performed by healthcare<br>professionals with appropriate<br>training.  | Criteria of the indicator: All nurses working<br>on the project health care setting by the date<br>the evaluation processes begin.  | <ul> <li>Percentage of healthcare professionals who received training on fall assessment screening and patient's record register. Data will be collected from a questionnaire created for this purpose.</li> <li>This criterion is met (YES) if the nurse answers "Yes" to the question "Have you received training regarding fall assessment and prevention estrategies within the last year?"</li> <li>This criterion is not met (NO) if the nurse answers "No" to the question "Have you received training regarding fall assessment and prevention estrategies within the last year?"</li> </ul>                 |

# **Setting and Sample**

This implementation project will be held in a primary healthcare centre which belongs to the Public Health Service of Principality of Asturias (Spain). It is located in Otero, a suburb in the city of Oviedo, and it covers a wide area with both urban a rural residential environments. Associated with the main centre there are two rural healthcare centres, each with a community nurse. There is a total of 14 primary healthcare teams formed by practice/community nurses and general practitioners. Each team provides care to an average of 1500-1600 people living in the community.

The target population are those aged 70 or older living in the basic healthcare area who attended health care centre. 62 patients will be taken randomly from a list of those patients who attended healthcare centre a period of two months.





#### Methods – Phase 2

#### **Potential strategies for GRiP**



| Barrier  | Strategies   | Resources   | Outcomes   |
|--|--|---|--|
| Lack of information/knowledge<br>about best practice       | Include training on fall risk<br>screening, multifactorial fall<br>assessment and interventions  | <ul> <li>Time</li> <li>Training room</li> <li>IT resources</li> <li>Seminars</li> <li>Clinical expert on the topic</li> </ul> | - All staff receive training<br>- Professional motivation  |
| Lack of information/knowledge about implementation process | Inform about the phases of the<br>implementation project, differences<br>between implementation project and<br>clinical research, and aims of the<br>project | - Seminars<br>- Training room<br>- Time   | <ul> <li>All staff understand the phases and objectives of the implementation project</li> <li>Improve staff engagement</li> </ul> |
| Lack of labour stability in nursing staff                  | Develop a welcome package about<br>the implementation project and<br>undertake 1 hour training   | - Time<br>- Training room   | New staff engagement   |

#### **Phase 2 - Potential strategies for GRiP**

| Barrier  | Strategies  | Resources  | Outcomes  |
|--|---|--|---|
| Lack of specific fall<br>assessment and intervention<br>record | <ul> <li>Desing a pathway to register fall<br/>assessment and intervention within<br/>the current system</li> <li>Develop a clinical algorithm</li> </ul> | <ul> <li>IT staff</li> <li>Health technicians</li> <li>Staff training</li> </ul> | Improve quality of registration   |
| Time availability in daily practice                            | Evaluate patients' needs of assessment, intervention and follow-<br>up  | Staff training and information   | <ul> <li>Avoid excesive workload</li> <li>Improve staff engagement</li> </ul> |
| Lack of organization<br>engagement                             | Provide information and feedback  | <ul> <li>Aims of the project</li> <li>Communication</li> <li>channels</li> </ul> | Organization engagement   |
| Lack of patients information about the topic                   | To provide information about the topic  | - Pamphlets<br>- Posters   | Patients engagement   |
| Lack of patient motivation to follow the interventions         | Optimize targeted interventions   | Follow-up interventions<br>such as exercise record<br>or phone calls             | Patient commitment  |

# Conclusion



This project seeks to enhance the quality and safety of healthcare regarding fall assessment and intervention and have a dual impact, for both patients and healthcare providers. On the one hand, it is hoped to promote evidence-based healthcare among nursing staff by helping them to develop their knowledge and skills about fall assessment and intervention among the elderly living in the community. On the other hand, to improve patients' individual capacities and to empower them towards improving their health and their well-being.

#### **Acknowledgements**

To the contributions of the following:

- The Joanna Briggs Institute
- The Spanish Centre for Evidence-based Healthcare (Centro Español para los cuidados de salud basados en la evidencia – CECBE)
- General Directorate of Healthcare, Humanization and Socio-healthcare
- The project team
- Nursing staff from Otero primary healthcare centre
- Nursing Management Department of the primary healthcare area



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DEL PRINCIPADO DE ASTURIAS



#### EVIDENCE-BASED CLINICAL FELLOWSHIP PROGRAM (EBCFP)

SAN ELOY OSPITALEA HOSPITAL SAN ELOY

**Project Title**: Postoperative pain management among adults in an Special Care Unit of a primary Hospital : a best practice implementation project

**Participants Name:** Silvia Ruiz González

Organization: Hospital San Eloy, OSI Barakaldo-Sestao OSAKIDETZA Osakidetza

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### Introduction

Postoperative pain is often underestimated and insufficiently treated.

Approximately 70% of surgical patients experience some degree (moderate, severe or extreme) of postoperative pain.

The results of insufficient treatment of postoperative pain include increased morbidity and mortality, mainly due to respiratory and thromboembolic complications, a longer hospital stay, a deterioration in the quality of life and appearance of chronic pain.



#### **Audit Question**

What effect will the implementation of good practices based on the best available evidence improve pain management in patients undergoing mayor trauma surgery?



### **Aims and objectives**

The main object of this project is to improve clinical practice in postoperative pain management in the first hours in patients after total hip and total knee

replacement.





# **Aims and objectives**

#### Specific objectives

- To improve the quality of health education related to pain.
- To decrease the variations in clinical practice in relation to postoperative pain.
- To increase staff compliance with the requirement to use a validate scale.
- To improve pain registration as a constant "5" in the patient's medical history.
- To improve patient well-being.
- To improve clinical practice in the postoperative pain management.

#### Methods

This project will use the pre-post implementation clinical audit during six month period, using the JBI Practical Application of Clinical Evidence System (PACES) and Getting research into Practise (GRIP) audit and feedback tool. The PACES and GRIP framework for promoting evidence based health care involves three stages of activity:





#### Phase 1:

Establish a project team and undertake a baseline audit.

#### Phase 2:



Examine results of audit and design and implement strategies to address non-compliance found in the baseline audit.

#### Phase 3:

Conduct a follow-up audit after a few months to assess the results of the interventions and to determinate if practice has improved.

### **Audit Criteria**

- A validated tool is used to assess the patient's response to pain management treatment. (JBI-ES-101255)
- Patients have received a multimodal pain management that involves a combination of pharmacological and non- pharmacological interventions. *(JBI-ES-101255)*
- The timing of pain assessment after initation of treatment is based on the time to achieve the peak effects of the administered drug.(*JBI-ES-101255*)
- Patients with inadequately controlled postoperative pain management are referred to a pain specialist.( *JBI-ES-101255*)

### **Audit Criteria**

• Pain assessment is performed upon admission of the patient to the unit.

- Pain assessment is carried out 4 hours after the patient's admission to the unit.
- Pain assessment is performed when a change in the clinical situation occurs, that is, when the patient needs medical attention due to hemodynamic instability.

# Not applicable Criteria

- A policy/procedure guides the management of post-operative pain.
- Patients receiving systemic opioids are monitored for sedation, respiratory status and other potential adverse events.
- Patients receive individually tailored pre-operative education about the management of pain post-operatively.

# **Setting and Sample**

#### SETTING

Special Care Unit of a primary Hospital (San Eloy), located in Barakaldo, Bizkaia, Basque Country, Spain.

#### SAMPLE

30 Adults( from 50 to 101) of both sexes, undergoing Trauma surgery for the placement of total hip and total knee prosthesis.







#### Potential strategies for GRiP

- Evaluating baseline audit findings: it is important to compare current practice to best practice (using the findings from the baseline audit). These findings (both good and bad) should be presented to the staff involved in the project and the working group overseeing the project. Feedback may be provided in a number of forms—verbal, printed or electronic—and a variety of these may be used (when possible).
- **Identifying barriers and enablers to use of evidence**: using the findings from the baseline clinical audit, the working group, led by the project leader, should aim to identify any barriers and enablers to the utilization of evidence in practice, e.g.: lack of knowledge, cultural or religious-based barriers, feelings, attitudes or resistance to change due to beliefs, values and previous experiences.
- **Determinate ways to overcome barriers for change** : start designing the most effective and efficient way to manage the proposed barriers and achieve a successful implementation of the best available evidence.

### **Potential strategies for GRiP**

| Barrier    | Strategy  | Resources  | Outcomes  |
|------------|---|--|---|
| What was ? | What was the action<br>to overcome the<br>barrier (e.g.<br>development of tool,<br>delivering educational<br>sessions,<br>development of<br>pamphlets)? | What resources did<br>you use to achieve a<br>desirable outcome<br>(e.g. tool, charts,<br>educational<br>package, seminars,<br>extra staff)? | What was the<br>result?<br>How was an<br>improvement<br>measured? |

# Conclusion

Incorporating good evidence-based practices in postoperative pain management improves the quality of health care.



### Acknowledgements

The author would like to acknowledge the contribution of the supervision of the unit, of the Quality teaching Unit of the Hospital, of the professionals of the Special Care Unit of the San Eloy hospital that have participated in this project and of the followings organitations:







SAN ELOY OSPITALEA



# Proyecto

Topic: Care of intravenous catheter sites

Project Title: Suitability of PICC management according to pharmacological therapy

Principal participant Name: Ferraz-Torres M.

Organization: Complejo Hospitalario de Navarra

### Finalidad del proyecto

 Esta propuesta pretende contribuir a la mejora de la calidad de los cuidados y seguridad clínica de los pacientes ingresados en Unidades de Cuidados Intensivos, ofreciendo el reconocimiento del uso de los catéteres catéteres centrales de acceso periférico (PICC) que se lleva a cabo en estas unidades así como la detección de posibles puntos de mejora.

# **Objetivo del proyecto**

 Identificar necesidades de mejora entorno al cuidados y manejo farmacológico del catéter PICC en una Unidad de cuidados intensivos (UCI) así como reconocer las actuaciones a realizar según la evidencia clínica existente hasta el momento.

#### Cronograma del proyecto

| 2021-2022                  | May | Jun | Jul | Ag | Sep | Oct | Nov | Dic | Ene | Feb | Marz | Abr | May |
|----------------------------|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|------|-----|-----|
| Aceptación proyecto<br>CHN |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Delimitación grupo de      |     |     |     |    |     |     |     |     |     |     |      |     |     |
| trabaio                    |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Solicitud aceptación CEIC  |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Navarra                    |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Reconocimiento             |     |     |     |    |     |     |     |     |     |     |      |     |     |
| necesidades                |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Desarrollo Audit           |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Realización audit basal    |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Análisis resultados audit  |     |     |     |    |     |     |     |     |     |     |      |     |     |
| basal                      |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Elaboración propuesta      |     |     |     |    |     |     |     |     |     |     |      |     |     |
| intervención:              |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Creación curso             |     |     |     |    |     |     |     |     |     |     |      |     |     |
| formación continuada       |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Incorporación              |     |     |     |    |     |     |     |     |     |     |      |     |     |
| impulsores-                |     |     |     |    |     |     |     |     |     |     |      |     |     |
| colaboradores guía         |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Aactualización             |     |     |     |    |     |     |     |     |     |     |      |     |     |
| protocolos- guía           |     |     |     |    |     |     |     |     |     |     |      |     |     |
| farmacológica              |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Taller informativo         |     |     |     |    |     |     |     |     |     |     |      |     |     |
| nuevas guias/protocolos    |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Desarrollo formación       |     |     |     |    |     |     |     |     |     |     |      |     |     |
|                            |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Evaluación cuestionario    |     |     |     |    |     |     |     |     |     |     |      |     |     |
| continuada                 |     |     |     |    |     |     |     |     |     |     |      |     |     |
|                            |     |     |     |    |     |     |     |     |     |     |      |     |     |
| desarrollo protocolo       |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Audit 2                    |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Análisis audit final       |     |     |     |    |     |     |     |     |     |     |      |     |     |
| Memoria proyecto           |     |     |     |    |     |     |     |     |     |     |      |     |     |

- Realización de un proyecto de intervención mediante una selección de muestra representativa de la población de estudio, de forma aleatorizada simple.
- El lugar de realización y pilotaje del estudio será el hospital terciario CHN, en el área de cuidados intensivos destinada al paciente adulto.
- Creación de un grupo de trabajo compuesto por: \*IP: coordinador del proyecto
   \*1 farmacéutica de la UCI
   \*1 facultativo de medicina intensiva
   \*4 graduadas en enfermería de la UCI

- Tras el periodo de detección de necesidades de mejora se desarrollará una intervención centrada en 3 puntos clave:
  - \*Captación y refuerzo de impulsores y colaboradores de la unidad como miembros de la guía de acceso vascular de BPSO
  - \*Actualización de protocolo de inserción y cuidado del PICC y la guía de uso farmacológico desarrollo de talleres información para la presentación de dichos protocolos y actualizaciones
  - \*Creación de un curso de formación continuada online para todos los profesionales del servicio sobre abordaje y manejo del PICC

Este unide de suide des interacions seté fermes de mer

 Herramientas para la recogida de datos: Cuestionario on-line con ítems (s/n/na)

| Audit criterion |  | Sample         | Method used to measure percentage compliance with best practice |  |  |
|-----------------|--|----------------|---|--|--|
|                 |  |                | Cuestionario on-line con items si-no-na                         |  |  |
|                 | <ol> <li>Mantengo la técnica aséptica y estéril durante la administración de<br/>medicamentos y en todo momento</li> </ol>     | health workers | <ul> <li>Si: correcto</li> <li>No: incorrecto</li> </ul>        |  |  |
|                 | 1. Paso el material punzante de mano a mano  | health workers | <ul> <li>Si: incorrecto</li> <li>No: correcto</li> </ul>        |  |  |
|                 | 1. Vuelvo a tapar, doblo o desmonto las agujas tras su uso   | health workers | <ul> <li>Si: incorrecto</li> <li>No: correcto</li> </ul>        |  |  |
|                 | 1. Como responsable de generar residuos punzantes, yo los<br>desecho al contenedor correspondiente                             | health workers | <ul> <li>Si: correcto</li> <li>No: incorrecto</li> </ul>        |  |  |
|                 | <ol> <li>Me siento capacitad@ y formad@ para cuidar a un paciente<br/>con un dispositivo intravascular como el PICC</li> </ol> | health workers | <ul> <li>Si: correcto</li> <li>No: incorrecto</li> </ul>        |  |  |

| 1. | Tengo un entorno iluminado, ventilado, libre de<br>distracción y con espacio suficiente para preparar la<br>medicación endovenosa | health workers | • | Si: correcto<br>No: incorrecto |
|----|---|----------------|---|--------------------------------|
| 1. | Soy conocedor de la guía de recomendaciones para<br>el uso de fármacos por vía PICC/línea media del<br>CHN                        | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Uso la guía de recomendaciones para el uso de<br>fármacos por PICC/línea media para el control de<br>los fármacos administrados   | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Utilizo el ecógrafo para la inserción del catéter PICC  | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Realizo la medición del diámetro de la vena con el<br>ecógrafo  | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Realizo la medición del diámetro de la vena con el<br>compresor puesto  | health workers | • | Si: incorrecto<br>No: correcto |
| 1. | Conozco y uso el ratio vena/catéter adecuado para<br>la inserción del catéter   | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Mido la longitud del catéter a introducir previo a su inserción   | health workers | • | Si: correcto<br>No: incorrecto |

| 1. | Compruebo que la guía esté dentro de<br>la luz del vaso tras introducirla  | health workers | • | Si: correcto<br>No: incorrecto |
|----|--|----------------|---|--------------------------------|
| 1. | Realizo la dilatación del acceso con el<br>compresor colocado  | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Vigilo el punto de punción del catéter<br>una vez al turno   | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Conozco la función del bioconector o<br>tapón clave  | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Evalúo el sitio de inserción del catéter<br>antes de la administración del<br>medicamento  | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Tengo en cuentas las interacciones de<br>los fármacos que administro por el<br>catéter   | health workers | • | Si: correcto<br>No: incorrecto |
| 1. | Aplico el antiséptico de gluconate de<br>clorexidina alcohólica al 2% para<br>descontaminar el punto de acceso al<br>catéter (o povidona iodada con alcohol<br>en pacientes con sensibilidad a la<br>clorhexidina) y lo dejo secar antes de<br>acceder al sistema. | health workers | • | Si: correcto<br>No: incorrecto |

#### **Dificultades y dudas actuales**

| Barrier                             | Strategy  | Resources   | Outcomes   |
|-------------------------------------|---|---|--|
| Resistance to change                | Inform and involve the whole team   | Leading person in<br>directing and stimulating<br>participation                   | Team participation   |
| Lack of knowledge about<br>evidence | Offer accredited training<br>to improve knowledge of<br>the available evidence      | Vascular access training<br>kit available for team<br>training                    | Team knowledge update  |
| Lack of professional time           | Virtual training format<br>and dynamic data<br>collection for recurring<br>sessions | Electronic tool for direct<br>contact with professionals                          | Easy, anywhere, anytime<br>access to training and<br>project information |
| Lack of motivation                  | Proportion of diploma<br>and option to join the<br>team                             | Development of training<br>within the accredited<br>vascular access BPSO<br>group | Increased interest to<br>improve   |

#### **Nuevos avances**

- Creación del equipo multidisciplinar de trabajo
- Identificación de ítems para el AUDIT CRITERIA
- Aceptación interna del Complejo Hospitalario de Navarra
- Tramitación de aceptación del proyecto en Comité ético de investigación clíu de Navarra
- Creación de base de registro de variables como herramienta de recogida longitudinal y prospectiva de los datos
- Creación del cuestionario on-line para divulgación de los profesionales sanitarios
- Divulgación del cuestionario y obtención de datos (n=77)
- Análisis de los datos e identificación de necesidades de trabajo
- Identificación de herramientas de formación, actualización de protocolo PICC y publicación de nueva guía farmacológica para uso en PICC/Midline

# Próximos pasos a corto plazo

- Registro en PABIS de los resultados obtenidos en el cuestionario: auditoria basal
- Actualización formación equipo del proyecto para divulgación información sobre evidencia en el cuidado de catéteres y uso de nueva guía de uso de fármacos en PICC/línea media.
- Creación del curso de formación y divulgación del mismo

#### Pasos a medio plazo

- Realización de formación interna en servicio con evidencia sobre cuidado y difusión de nueva guía farmacológica
- Recogida de datos prospectivos en base electrónica durante 3 meses
- Depuración de base para análisis de datos en SPSS
- Nueva divulgación cuestionario para auditoria final (tras 1 mes de la formación)



#### EVIDENCE-BASED CLINICAL FELLOWSHIP PROGRAM (EBCFP)

Promoting Sleep And Rest During paediatric Hospitalization in a third level Hospital: a best practise implementation project.

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#### Introduction

Sleep is a basic human need.

Stresses of hospitalization are commonly associated with sleep difficulties in children .As many as 20– 30% of young children and adolescents in community samples experience sleep problems or have some type of sleep disturbance.

The hospital environment is characterized by high levels of light and noise, and frequent interruptions from health care providers awakening children to complete routine nursing care procedures.

Lack of uninterrupted night rest undermines patient's comfort, but it also triggers other undesirable effects such as worse recovery from ongoing conditions.

### **Audit Question**

What is the best available evidence to support sleep and rest at night for the hospitalised child?







#### **GENERAL AIM**

# Promote sleep and rest for pediatric patients during hospitalization



# **Specific objectives**

Provide nurses with education around strategies to preserve sleep, along with evidence-based guidelines/protocols around provision of nursing care at night related to preserving sleep.

Improve factors that influence sleep promotion such as noise, light levels and staff entering the child's room.

Conduct sleep education intervention and relaxation exercise training for children and their caregivers

Conduct a sleep assessment of the hospitalised child.



#### **Methods**

This evidence implementation project used the Joanna Briggs Institute Practical Application of Clinical Evidence System (JBI PACES) and Getting Research into Practice (GRiP) audit and feedback tool.

The JBI PACES and GRiP framework for promoting evidence-based healthcare involves three phases of activity:

Establishing a team for the project and undertaking a baseline audit based on criteria informed by the evidence.

Reflecting on the results of the baseline audit and designing and implementing strategies to address non-compliance found in the baseline audit informed by the JBI GRiP framework.

Conducting a follow-up audit to assess the outcomes of the interventions implemented to improve practice, and identify future practice issues to be addressed in subsequent audits



#### Phase 1: Baseline audit

The professionals that make up **the team** will be:

- 2 pediatricians
- 1 nursing supervisor
- 3 nurses (nurses of the unit and one nurse researcher)
- 3 auxiliary nurses.

The design and conception of the implantation study was carried out by nursing supervisor, pediatricians and nurse researcher.

The collection of baseline and followup data will be carried out by nurses and auxiliary nurses.

The design, development and operation of the database will be carried out by nursing supervisor and nurse researcher. The analysis of barriers/facilitators, design of the intervention to be implemented, interpretation and analysis of the results, as well as the preparation of dissemination reports (communications and articles), will be carried out by the entire audit team.

#### **Audit Criteria**

|     | Audit Criteria  |
|-----|---|
| 01. | Nurses are provided with education on strategies to promote sleep and rest.             |
| 02. | A multi-faceted approach to sleep promotion is used.                                    |
| 03. | Children and/or their caregivers are provided with education regarding sleep promotion. |
| 04. | Sleep assessment during hospital admission  |

#### **Methods**

Phase 2:Strategies for Getting Research into Practice (GRiP)

| Barrier  | Strategy  | Resources              | Outcomes   |
|--|---|------------------------|--|
| Absence of specific<br>recording of children's<br>sleep                  | - Implementing a register<br>in the children's medical<br>records   | -Software application. | -100% of the children have<br>a completed sleep<br>assessment record |
| Lack of motivation of<br>health staff directly<br>involved in the study. | <ul> <li>Curricular compensation</li> <li>Appeal to the importance<br/>of evidence-based care.</li> </ul> | -Meeting rooms         | -Increase staff motivation   |
| Training of temporary<br>staff/correctional staff                        | -Short weekly training<br>sessions during the<br>working day.   | -Meeting rooms         | Trained and skilled staff  |



Phase 3: Follow-up audit(s)

The follow-up audit will be carried out 6 months after the training of the professionals, reaching the same sample size as in the baseline audit (n=95).





The "Marqués de Valdecilla" University Hospital (HUMV), a reference hospital in the Autonomous Community of Cantabria and the highest level within the National Health System.

PAEDIATRIC HOSPITAL WARD: 1,500 children are admitted to the paediatric hospitalisation ward each year with an average stay of 3.08 days. It has 24 single rooms and the occupancy rate is 53% (2020). It has a multi-professional team composed of 3 assistant paediatricians, two resident doctors, 12 nurses, 9 auxiliary nurses and a nursing supervisor.

children with different paediatric respiratory, gastrointestinal, surgical, traumatology, psychiatric and gastrointestinal pathologies are admitted to this ward.... from one month of life to 16 years of age.

### Sample

#### SAMPLE SELECTION:

 Study participants will be children between 3 and 16 years of age admitted to the paediatric inpatient unit.

#### EXCLUSIONS:

- Children with sleep disorders
- Children with cerebral palsy
- Families with language difficulties

### Sample

-<u>SAMPLE SELECTION</u>: The sample size calculation was performed using a reference population: 1500 admissions per month. A random sample of 95 individuals was considered sufficient to estimate, with 95% confidence and a precision of +/- 5 percentage units, a population percentage that is expected to be around 50%. The percentage of replacements required is expected to be 10%. Data collection will be carried out consecutively on several days until the sample size is complete.

#### -<u>INSTITUTION</u>: The study will be carried out in the paediatric inpatient ward of a tertiary hospital, consisting of 24 individual beds

### Conclusion

Evidence-based care avoids clinical variability and improves the quality of care.



#### **Acknowledgements**

THE HUMV QUALITY, RESEARCH AND TRAINING UNIT

TO THE PROJECT TEAM TO MY COLLEAGUES IN THE PAEDIATRIC WARD

OF THE "MARQUÉS DE VALDECILLA" UNIVERSITY HOSPITAL. TO THE SPANISH CENTER FOR EVIDENCE-BASED HEALTH CARE

THANK YO



#### EVIDENCE-BASED CLINICAL FELLOWSHIP PROGRAM (EBCFP)

Project Title: Patency, assessment and management of central catheter occlusion in adult patients in the intensive care unit: a best practice implementation project. Participants Name: Paula Marqués Irigoyen Organization: Hospital San Pedro de Logroño

#### Introduction

 Central venous catheter cannulation is a very common procedure in intensive care units (ICU). Its main uses are the administration of fluids, drugs, blood, parenteral nutrition, blood sampling and haemodynamic monitoring.

 It should be noted that all vascular access devices are subject to complications, and one of the main severe complications of central catheters is catheter occlusion. This can lead to delayed drug delivery and increased patient morbidity and mortality.

# Introduction

- According to studies, there are three possible causes of occlusion: mechanical occlusion, drug precipitation or lipid accumulation, and thrombotic occlusion. Therefore, proper catheter assessment is key to the management of occlusion and restoration of patency.
- New staff additions to the intensive care units.







#### **Audit Question**

• Do all nurses in intensive care units follow the same evidencebased standards for central line management?

# **Aims and objectives**

Aims of the project

- 1. Reduce occlusion of central venous catheter
- 2. Improving the quality of clinical practice
- **3**. To provide nurses with knowledge on the management of central venous catheters.



Phase 1: Elaborate the protocol, specify the audit criteria and establish the team.

Phase 2: Designing and implementing strategies to improve practice

Phase 3: Post-implementation follow-up audit of the change strategy.

### Audit Criteria

- A hospital policy or protocol should detail 4. recommended courses of action for the treatment of an occluded CVC with thrombolytics.
- Healthcare professionals caring for patients with a CVC receive ongoing training focusing on the assessment, prevention and treatment of occlusions.
- 3. All CVC lumens should be flushed/blocked with normal saline using a 10 mL syringe before and after blood sampling, administration of drugs/solutions and changes of added devices.

- If there is a CVC occlusion, rapid instillation of an appropriate thrombolytic agent is initiated.
- If a CVAD occlusion is suspected, an assessment of catheter function is performed, including flushing with 0.9% normal saline and an attempt to aspirate blood from the catheter lumen.
- Evaluation of CVC occlusion findings should be documented according to hospital policy.

# **Setting and Sample**

The environment in which the project will be carried out is in one of the ICU of the San Pedro Hospital in Logroño.

The sample includes 30 nurses in the baseline audit and the same number in the follow-up audit. For both audits the medical history of 50 patients will also be used.

# **Potential strategies for GRiP**

- Temporary nature of contracts.
- High workload.
- Opposition to change.
- Changes in the service in function of the Covid19 pandemic.

#### **Conclusion/Acknowledgements**

The ICU has experienced a great deal of change since the advent of the covid 19 pandemic. This has meant immediate incorporation of staff with no experience in ICU, as well as changes in the unit's routines and ways of working. Therefore, protocolising something as important as central line management can reduce patient morbidity and mortality.

By using standardized working methods, it is intended that all staff carry out the same evidence-based clinical practices.

To achieve all of the above, it is essential to form a good working team where all staff are involved.