Project Title:
ANALYSIS OF THE HOSPITAL ADMISSIONS OF ONCOLOGICAL PATIENTS

Presenter’s Name:
BEGOÑA CAMPOS BALEA & MARÍA FERREIRO DURÁN

Institution:
HOSPITAL UNIVERSITARIO LUCUS AUGUSTI (HULA)

Date: 14 DECEMBER 2020
HULA is a 3rd level hospital located in the city of Lugo (>800 beds)

It is part of the Health Care Area of Lugo, A Mariña e Monforte de Lemos

The Oncology Service is made up of 12 oncologists, 27 nurses, and other personnel (orderlies, administrative assistants and health assistants)

Oncology outpatient consultations (OC) and DH (Day Hospital) in all three hospitals

UNE standard 197003 of patient safety

In the HULA we have a hospital ward with 30 beds (26 in double rooms and 4 singles) and 1 DH with 36 chairs and 2 beds, shared with Hematology
Problem Statement

An increase has been observed in the number of cancer patients admitted to the Oncology Service in recent months:

12-15 → 24-26 patients admitted / day

It affects the quality of patient care
Team Members

• Sponsor: Sergio Vázquez Estévez -- Head of the Medical Oncology service and Radiation Oncology Coordinator

• Leader: Begoña Campos Balea – medical oncologist

• Facilitator: María Ferreiro Durán – nurse (Oncology Nursing Consultant)

• Team:
  • Laura Torrado – radiotherapy oncologist
  • Jonathan Grandío – emergency physician
  • Pilar Rodríguez – family physician
  • Olga Roca – quality department nurse
  • Alberto Carral – medical oncologist
Baseline Data

Admitted between 10/1/19 and 12/31/19 in the Oncology Service:
- 225 patients
- Average age: 67 (36-92)
- 103 patients >70 years old (45%)

- Admission from Oncology consultation 23%
- Transfer from another service 13%
- Origin of entry to the ER 63%

91%
Baseline Data

Admitted between 10/1/19 and 12/31/19 in the Oncology Service:
225 patients
Average age: 67 (36-92)
103 patients >70 years old (45%)
Cause & Effect Diagram

- Epidemiological outbreak
  - Chest infections more frequent in certain periods

- Health care personnel
  - Evaluation by unsupervised resident physician
  - Desmotivation
  - Oncologist on duty

- Uncommunicated oncology admission criteria
  - Full observation beds
  - Health care system

- Patient
  - Socio-family problems
  - Wants to avoid hospital stay
  - Pathology with frequent complications
  - Reluctance to visit family physician

High number of hospital admissions
1. AUTUMN AND WINTER
2. LACK OF DISSEMINATION OF ADMISSION CRITERIA IN ONCOLOGY
3. THE PATIENT DOES NOT WANT HOSPITALIZATION
4. NO ONCOLOGIST ON DUTY
5. DEMOTIVATION OF HEALTH PERSONNEL
6. PATHOLOGY WITH FREQUENT COMPLICATIONS
7. SOCIO-FAMILY PROBLEMS
8. LACK OF INFORMATION
Aim Statement

The objective is to analyze the causes of the increase in the average number of cancer patients admitted, in order to act on them and reduce the number of admissions.

SMART:
- **S**: decrease the number of admissions
- **M**: yes
- **A**: 15 -20 %
- **R**: improves quality of care and reduces costs
- **T**: 6 months
Measures

• Measures:
  • Promote the flu and pneumococcal vaccination campaign in Oncology and oncology nursing consultations
  • Disseminate the admission criteria for Oncology among emergency physicians, internists on duty and residents (Medical Director)
  • Increase hours of the Oncology Emergency consultation
  • Promote the oncology nursing consultation for more personalized care for cancer patients and their caregivers (TELEA design)

• Patient population:
  • All cancer patients under active treatment and / or follow-up in Oncology

• Calculation methodology:
  • Comparison of monthly average admissions

• Data source: hospital registry of patients admitted to Oncology

• Data collection frequency: quarterly

• Data quality(any limitations): none… ¿COVID pandemic?
## Prioritized List of Changes (Priority/Pay-Off Matrix)

<table>
<thead>
<tr>
<th>High Impact</th>
<th>Low Impact</th>
</tr>
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**Prioritized List of Changes**  
*(Priority/Pay-Off Matrix)*

New meeting with the working group in November

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**ASCO Quality Training Program**

**eco**
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New meeting with the working group in November
New data (I)

Admitted between 9/11/20 and 15/11/20 in the Oncology Service:

- 28 patients (4 not evaluable)
- Average age: 68 (50-91)
- 8 patients >70 years old (33%)

**tumor location**

**origin**

**tumor stage**

- III: 87.5%
New data (I)

Admitted between 9/11/20 and 15/11/20 in the Oncology Service:

- 28 patients (4 not evaluable)
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**tumor location**

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<tr>
<td>CPNCP</td>
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<tr>
<td>CPCP</td>
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<tr>
<td>Ovary</td>
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<tr>
<td>Colon</td>
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<tr>
<td>Cervix</td>
<td></td>
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<tr>
<td>Others</td>
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**tumor stage**

- III: 87.5%
- IV: 58%

**vaccinated**

- Yes: 58%
- No: 42%
New data (II)

**Symptoms**
- Deterioration
- Pain
- Fever
- Dyspnea
- Diarrhea
- Vomits
- Odynphagia
- Desorientat...

**Origin of Admission to Oncology**
- MI
- Oncologist on call of MI
- Emergency oncologist
- Consultation oncologist

**Diagnosis**
- Intestinal volvulus
- EP
- Other infections
- Respiratory infection
- Tumoral superinfection
- PD
- Toxicity

**Oncology Admission Criteria**
- Yes: 83%
- No
## PDSA Plan

<table>
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<tr>
<td></td>
<td>o The 75% know the criteria</td>
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<td></td>
<td>o Entry criteria are met in 83% (vs 85% in 2019)</td>
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<td>o 50% of patients who attend the Oncology consultation are vaccinated</td>
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**PDSA Plan... The future...**

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<td>o Pain</td>
<td>Develop specific courses for patients and caregivers relatives of ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Vomiting</td>
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<td></td>
<td></td>
<td>o Diarrhea</td>
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<tr>
<td></td>
<td></td>
<td>o Constipation</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>o Mucositis</td>
<td></td>
</tr>
<tr>
<td>December 2020</td>
<td>Review of certain admission criteria with the emergency room doctors to establish admission</td>
<td>o Poor analgesic control</td>
<td>Visit of the oncologist every working day first hour in the morning to</td>
</tr>
<tr>
<td></td>
<td>criteria for emergency observation</td>
<td>o Febrile neutropenia with good prognosis</td>
<td>assess emergency observation patients</td>
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<tr>
<td></td>
<td></td>
<td>o Small symptomatic brain metastases</td>
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CRITERIOS DE INGRESO EN EL SERVICIO DE ONCOLOGÍA MÉDICA DEL HULIA

1. Complicaciones directas del tratamiento oncológico.
2. Urgencias oncológicas directamente relacionadas con el tumor (hipercalcemia tumoral, hipogostrinemia por SACT, compresión medular, síndrome de vena cava superior, metastasis cerebrales, etc.).
3. Mal control analgésico en paciente oncológico, que precise ingreso.
4. Infecciones de cualquier tipo en pacientes con tratamiento activo.

NO SON MOTIVO DE INGRESO EN ONCOLOGÍA:

1. Descompensaciones de Diabetes Mellitus.
2. Tromboembolismo pulmonar.
3. Trombosis venosas profundas.
4. Pacientes seguidos por la Unidad de Cuidados Paliativos del HULIA (según quedaría reflejado en IANUS).
5. EPOC exaggravado.
6. Insuficiencia cardiaca.
7. Infecciones de cualquier tipo en pacientes oncológicos sin tratamiento activo.

a. Derrames pleurales sintomáticos subsidiarios de tubo de torax y pleurodesis. Estos pacientes ingresarán a cargo del servicio de Neumología.

Los pacientes NO seguidos por el servicio de Oncología, que precinen ingreso hospitalario, no se ingresan en Oncología:

Los ingresos se realizarán a cargo del Servicio responsable y, en caso de prestar atención oncológica, se realizará interconsulta al Servicio de Oncología para solicitar valoración y eventual traslado.

Actualizados a fecha de 15 de septiembre de 2020

Fernando F. Lamejo

Director de Atención Hospitalaria
Materials Developed (optional)

25 doctors answered the survey (19 + 6)

1. They know there are admission criteria in Oncology: 23:25 (90%)
2. They know the criteria for admission to Oncology: 19:25 (75%)
3. They know where to look for them: 11:25 (44%)
4. Believe they should be more widely spread: 12:25 (48%)
Change Data

Average number of admissions
Conclusions

- Cancer patients present a complex pathology, with difficult symptomatic control, which requires frequent hospital admissions. Especially in stages IV and in lung cancer.

- Calls to 061 have been reduced and consultation in Primary Care has increased before going to the Emergency Room.

- Admissions for pain and fever have decreased. It probably reflects the work carried out from the Oncology consultation and the Oncology nursing consultation in the "education" of the patient and their family.

- Admissions for respiratory infections have decreased. Possible role of influenza and pneumococcal vaccination, and most likely due to the beneficial effect of the anti-COVID campaign.
Conclusions

- Despite having disseminated the admission criteria among the physicians responsible for them, the percentage of compliance with these criteria has not improved.
  
  We will keep trying ...

- We would like to be able to continue with the project given the existing limitations this year beyond our control that have prevented us from fulfilling the proposed improvement projects.
Next Steps/Plan for Sustainability

- Remember the criteria for admission to Oncology quarterly
- Further enhance the vaccination campaign from consultation
- Raise awareness in Primary Care of the priority of the vaccine in cancer patients
- Develop specific courses for patients and families to manage certain symptoms
- Continue evaluating the results
  - collect data from patients admitted one week, twice a year
- Continue to improve the project over time
AIM: The objective is to analyze the causes of the increase in the average number of cancer patients admitted, in order to act on them and reduce the number of admissions by 15-20% within 6 months.

INTERVENTION: After analyzing the most frequent reasons for admission of cancer patients by the team, improvement measures have been established to try to reduce them by 15-20%:

- Promote the flu and pneumococcal vaccination campaign in Oncology and oncology nursing consultations
- Disseminate the admission criteria for Oncology among emergency physicians, internists on duty and residents (Medical Director)
- Increase hours of the Oncology Emergency consultation
- Promote the oncology nursing consultation for more personalized care for cancer patients and their caregivers (TELEA design)

Due to the current health situation, the adequate implementation of these measures has not been possible. Despite them, we have noticed beneficial changes for our objective.

RESULTS:

Graph title: number of patients admitted to the Oncology service: November 19 / November 20

CONCLUSIONS:

- Cancer patients present a complex pathology, with difficult symptomatic control, which requires frequent hospital admissions
- Calls to 061 have been reduced and consultation in Primary Care has increased before going to the Emergency Room
- Admissions for pain and fever have decreased
- Admissions for respiratory infections have decreased
- Despite having disseminated the admission criteria among the physicians responsible for them, the percentage of compliance with these criteria has not improved

NEXT STEPS:

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