using the software Pharma. Analysis of conformities showed that 204 patients (16%) had no Pharma exit prescription but exit treatments written in the EMR and 152 patients (12%) had no data either in Pharma nor in Axigate. Among the 933 patients, 348 (37%) had a copy/pasted prescription into their EMR and 585 (63%) presented discrepancies or lack of treatment into their EMR. No patient had the exit prescription scanned into their EMR although the software allows it. Two-hundred and seventy patients (29%) had no bodyweight provided even after the pharmacist notifications. Analysis of errors’ prescriptions: 255 were incorrect (4% of 7258 total number of drugs prescribed) with 36% drug redundancies, 29% incorrect dosage forms, including 7% of excessive dose and refractory period not respected in 25% cases. These errors were formulated daily by hospital pharmacists as a pharmaceutical opinion in Pharma but not applied by physicians in exit prescriptions. 

**Conclusion** The exit prescriptions are not always recorded with CPOE Pharma. Several nonconformities and errors in outpatients’ prescriptions, mainly absence of bodyweight and incorrect drug prescriptions are noted. Hospital pharmacists’ initiatives, such as training and communication with physicians, have been set to improve exit prescriptions which will be served by community pharmacies.

### Reference and/or Acknowledgements


No conflict of interest.

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**4CPS-189**

**Galenic Preparations and Rare Diseases: Guanidinoacetate Methyltransferase Deficiency: Experience in a Local Hospital**

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**Background** Guanidinoacetate methyltransferase (GAMT) deficiency is a rare disorder (prevalence 1/1,000,000), inherited as autosomal recessive traits, characterised by an inborn error of creatine synthesis. Creatine deficiency results in a combination of symptoms such as intellectual disability, autistic behaviour, seizures, speech delay and hypotonia. Magnetic resonance is used at diagnosis and follow-up. The treatment goal is an increase in creatine levels in the brain with oral supplementation of ornithine and creatine do not satisfy the needs of patients, 204 patients (16%) had no Pharma exit prescription but exit treatments written in the EMR and 152 patients (12%) had no data either in Pharma nor in Axigate. Among the 933 patients, 348 (37%) had a copy/pasted prescription into their EMR and 585 (63%) presented discrepancies or lack of treatment into their EMR. No patient had the exit prescription scanned into their EMR although the software allows it. Two-hundred and seventy patients (29%) had no bodyweight provided even after the pharmacist notifications. Analysis of errors’ prescriptions: 255 were incorrect (4% of 7258 total number of drugs prescribed) with 36% drug redundancies, 29% incorrect dosage forms, including 7% of excessive dose and refractory period not respected in 25% cases. These errors were formulated daily by hospital pharmacists as a pharmaceutical opinion in Pharma but not applied by physicians in exit prescriptions.

**Conclusion** The exit prescriptions are not always recorded with CPOE Pharma. Several nonconformities and errors in outpatients’ prescriptions, mainly absence of bodyweight and incorrect drug prescriptions are noted. Hospital pharmacists’ initiatives, such as training and communication with physicians, have been set to improve exit prescriptions which will be served by community pharmacies.

**Reference and/or Acknowledgements**


No conflict of interest.

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**4CPS-189**

**Adequacy of the Prescription of Parenteral Nutrition in Neonatology**

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**Background** Nowadays, there is a stronger consensus on the proceedings of nutritional support with parenteral nutrition (PN) in paediatrics and nutritional requirements in order to improve the process quality and the patient’s safety.

**Purpose** Review the prescriptions of PN to identify the degree of adherence to the available evidence (Clinical Practice Guide SENPE/SEGHNP/SEFH 2017) and propose areas for improvement.

**Material and methods** Retrospective study of newborn patients who received PN during 2017 in the area of neonatology in our hospital.

Patients divided according to the age ranges established by the guidelines: preterm newborn (RNPT) and term newborns under 1 month (RNAT).

Variables: contributions of macronutrients (amino acids, glucose, lipids), micronutrients (sodium, phosphorus, calcium), volume/kg and caloric requirements.

Data collected from PN elaboration program, Nutriwin, treated in Excel.

**Results** One-hundred and seventy-nine RNPT and 2,429 PNs were prepared and validated. Amino acids (aa): 96.8% of PN met the recommended requirements (3–4 g/kg/day). Carbohydrates (CH): 85.4% were adjusted and 13.4% were above the recommendations (6–12 g/kg/day). The limit of CH (16–18 g/kg/day) was not exceeded. Lipids: they did not exceed the maximum limit (3–4 g/kg/day). Sodium (Na) and potassium...
Rituximab Use in Children: A Single Hospital Experience

**Purpose** To describe the patterns of rituximab use in a paediatric hospital.

**Background** Rituximab is a monoclonal antibody directed against the CD20 antigen, expressed on the surface of B-lymphocytes, promoting the lysis of the cells. It is labelled for adult different indications, non-Hodgkin’s lymphoma, chronic lymphocytic leukaemia (CLL), rheumatoid arthritis and granulomatosis with polyangiitis and microscopic polyangiitis. Nowadays it is commonly used as an off-label treatment for many other diseases, including some paediatric disorders.

**Material and methods** We conducted a retrospective observational study involving all patients treated in a paediatric hospital with rituximab from January 2001 to June 2018.

**Clinical data** were collected from electronic patients’ medical records, including: patient age, prescribing services and indication.

**Results** The study comprised 145 patients (39% males) with a median age of 15.4 years. The principal indications according to the prescribing services were:

- Forty-seven patients of the nephrology unit: resistant or refractory nephrotic syndrome (34) and transplants—rejects (13).
- Forty patients of the oncology unit: non-Hodgkin lymphoma (23), syndrome opsoclonus–myoclonus in neuroblastoma (14) and others (three).
- Twenty-five patients of the haematology unit: disease: haemolytic anaemia (11), leukaemia (four), haemophagocytic syndrome (four), thrombocytopenic purpura (two) and others (four).
- Thirteen patients of the rheumatologic diseases unit: juvenile idiopathic arthritis (four), systemic lupus erythematosus (four), vasculitis (two) and others (three).
- Twelve patients of the neurology unit: autoimmune encephalitis (nine), post-Herpes Simplex encephalitis (two) and others (one).
- Seven patients of the infectious unit: Epstein–Barr virus infection (seven).
- One dermatologic disease: Steven–Johnson disease (one).

No unexpected side effects were observed outside those reported in the summary characteristics of the product.

**Conclusion** In paediatrics, rituximab treatment is prescribed for off-label indications. Our study shows that rituximab is used in a wide variability of disorders, where the renal disease, specifically the nephrotic syndrome, is the most common indication as a second-line treatment.

Although the utilisation of rituximab increases every year and some uses are well described, further studies for some indications are necessary to establish a correct safety and efficacy profile in children.

**REFERENCES AND/OR ACKNOWLEDGEMENTS**

To the pharmacy, oncology, haematology, immunology and nephrology staff.

No conflict of interest.

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**RITUXIMAB USE IN CHILDREN, A SINGLE HOSPITAL EXPERIENCE**

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**BACKGROUND**

Rituximab is a monoclonal antibody directed against the CD20 antigen, expressed on the surface of B-lymphocytes, promoting the lysis of the cells. It is labelled for adult different indications, non-Hodgkin’s lymphoma, chronic lymphocytic leukaemia (CLL), rheumatoid arthritis and granulomatosis with polyangiitis and microscopic polyangiitis. Nowadays it is commonly used as an off-label treatment for many other diseases, including some paediatric disorders.

**PURPOSE**

To describe the patterns of rituximab use in a paediatric teaching hospital.

**MATERIAL AND METHODS**

We conducted a retrospective observational study involving all patients treated in a paediatric hospital with rituximab from January 2001 to June 2018.

Clinical data were collected from electronic patients’ medical records, including: patient age, prescribing services and indication.

**RESULTS**

The study comprised 145 patients (39% males) with a median age of 15.4 years. The principal indications according to the prescribing services were:

- Forty-seven patients of the nephrology unit: resistant or refractory nephrotic syndrome (34) and transplants—rejects (13).
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- Seven patients of the infectious unit: Epstein–Barr virus infection (seven).
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No unexpected side effects were observed outside those reported in the summary characteristics of the product.

**CONCLUSION**

In paediatrics, rituximab treatment is prescribed for off-label indications. Our study shows that rituximab is used in a wide variability of disorders, where the renal disease, specifically the nephrotic syndrome, is the most common indication as a second-line treatment.

Although the utilisation of rituximab increases every year and some uses are well described, further studies for some indications are necessary to establish a correct safety and efficacy profile in children.

**REFERENCES AND/OR ACKNOWLEDGEMENTS**

To the pharmacy, oncology, haematology, immunology and nephrology staff.

No conflict of interest.

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**EFFECTIVENESS AND SAFETY OF RADIUM-223 CHLORIDE IN BONE-METASTATIC CASTRATION-RESISTANT PROSTATE CANCER**

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**BACKGROUND**

Radium-223 (223Ra) chloride has been shown to improve overall survival (OS) and progression-free survival (PFS) in patients with castration-resistant prostate cancer (CRPC) and bone metastases.

**PURPOSE**

To evaluate the effectiveness and safety of 223Ra in real-life clinical practice in patients with CRPC and bone metastases.

**MATERIAL AND METHODS**

Retrospective observational multicentre study evaluating all males with CRPC treated with 223Ra from July 2015 until September 2018. Demographical, diagnostic, therapeutic and clinical variables were collected. The response was assessed through the PFS and OS. To assess safety, all treatment-related adverse events were recorded.

**RESULTS**

Sixty-three patients with metastatic CRPC were treated with 223Ra at three different hospitals. Mean age 71.9 years (SD=10.3), 64% of patients ECOG 0–1% and 36% ECOG 2–3. Six per cent of patients received 223Ra as first treatment, 48% as second line and 25% as the third.