# **Drug information**

### Materials and Methods This included:

- Revision of the existing pharmacy waste control manual and comprehensive list of hazardous drugs. This laminated list with a visual guide to the waste streams was displayed throughout the pharmacy
- The list was used to 'code-tag' and highlight all existing hazardous material in the software system
- · New hazardous products were identified following an initial Quality Assurance assessment
- A new permanent self-adhesive purple 'Hazardous dispose of appropriately' sticker was designed for attachment to each package of relevant items by stores staff on receipt
- A leaflet was designed following discussions with NBT patient panel

Results The new system was agreed/ratified through NBT Medicines Governance Group before implementation. The NBT waste management team adopted this purple waste stream model throughout NBT and amended policies/procedures. Awareness was raised with all staff through existing training sessions to ensure trust-wide uptake and continued compliance.

**Conclusions** NBT Pharmacy has developed a waste control mechanism to process hazardous waste to ensure compliance with all legal requirements. Following recent external independent audits by the current waste contractors and the Environment Agency, the new model was described as 'very impressive' and stated that that this 'more than satisfied that the department and trust are fully compliant with waste regulations'.

## Abstract DGI-070 Table 1

### **NBT** leaflet

- § The medicine that you have been prescribed has been classified as hazardous waste.
- § This medicine should be disposed of safely as it could be hazardous if it is disposed of in household waste or via the sink or toilet.
- § This medication could also be dangerous if taken or handled by anyone other than the patient.
- § Any unused medicine should be returned to a pharmacy for disposal.
- § This medicine should be taken as directed by your Doctor or Pharmacist and should only be taken by the patient named on the label.
- § Keep all medication out of the reach and sight of children.

Thank you for your co-operation.

NHS Constitution. Information on your rights and responsibilities. Available at www.nhs.uk/ aboutnhs/constitution (Last accessed March 2010)

If you or the individual you are caring for need support reading this leaflet please ask a member of

© North Bristol NHS Trust. First Published October 2010. NBT002212

No conflict of interest.



# DGI-071 THE RATIONAL USE OF CETUXIMAB IN METASTATIC **COLORECTAL CANCER**

doi:10.1136/ejhpharm-2013-000276.337

<sup>1</sup>E Puerta, <sup>2</sup>M Cañadas, <sup>3</sup>A Perez, <sup>1</sup>I Vallejo, <sup>3</sup>A Concha, <sup>1</sup>MA Calleja. <sup>1</sup>Hospital Universitario Virgen de las Nieves, Pharmacy Service, Granada, Spain; 2Hospital Universitario Virgen de las Nieves, Pharmacogenetics Unit, Granada, Spain; 3Hospital Universitario Virgen de las Nieves, Phatology Deparment, Granada, Spain

Background Cetuximab label indication includes treatment of epidermal growth factor receptor (EGFR)-expressing, KRAS wild-type metastatic colorectal cancer in several possible ways: combination with irinotecan-based chemotherapy, first-line in combination with FOLFOX and as a single agent after oxaliplatin- and irinotecan-based treatment failure in irinotecan-intolerant patients. In our hospital, a multidisciplinary team drawn from the Oncology and Pharmacy services has established a consensus for the rational use of cetuximab as first or second-line agent in association with other chemotherapeutic agents and as monotherapy in third-line

treatment after the failure of oxaliplatin and irinotecan-based treatment.

**Purpose** To verify the relevance of cetuximab prescription to the local protocol and cheque the label indications for cetuximab in our

Materials and Methods A retrospective study of patients diagnosed with metastatic colorectal cancer between 2006-2012 with available KRAS status. Patients were followed up for a minimum of three months after diagnosis.

**Results** Twenty-six patients were collected (mean age: 62.2 ± 12.6 years; 53.8% male).

KRAS mutation was negative in 42.3% (11/26) patients and therefore they were eligible for treatment with cetuximab. Five out of those 11 patients underwent cetuximab treatment (5/11; 45.5%): three associated with oxaliplatin in first-line treatment, one associated with irinotecan in second-line treatment and one as monotherapy in second-line treatment. Four out of these 5 prescriptions of cetuximab were in accordance to our local protocol and label (4/5; 80.0%). One prescription was not in accordance with either the local protocol or the cetuximab label; due to this the patient was treated with oral capecitabine as first-line and cetuximab monotherapy as second-line treatment.

Three KRAS-negative patients (3/11; 27.3%) are currently in treatment with irinotecan as second-line therapy.

Three KRAS-negative patients were lost to follow-up after undergoing second-line treatment not known to contain a cetuximab prescription (3/11; 27.3%).

Fifteen patients positive for KRAS mutation (15/26; 57.7%) were not treated with cetuximab.

**Conclusions** Ninety-five percent of cetuximab prescriptions in our hospital are in accordance with the established local protocol and the cetuximab label (19/20).

No conflict of interest.

# DGI-072 THE USE OF LINEZOLID IN NEUROSURGERY: THE EXAMPLE OF A FRENCH TEACHING HOSPITAL

doi:10.1136/ejhpharm-2013-000276.338

S Raynaud, C Merienne, J Toft, JJ Tiravy, E Civade. Toulouse University Hospital, Department of pharmacy, Toulouse, France

Background Linezolid (LNZ) is an antibiotic indicated for the treatment of methicillin-resistant Gram-positive infections. Following recent unavailability of fosfomycin in France, local standards for the treatment of nosocomial meningitis and nosocomial brain abscesses (NM-NBA) have temporarily changed. Indeed, in Toulouse's Teaching Hospital, the Anti-infectious Committee has decided to modify its recommendations, changing fosfomycin to LNZ. At the same time, the use of LNZ is strictly controlled in our hospital, in order to preserve antimicrobial activity as long as possible.

Purpose To present an overview of the use of LNZ in a neurosurgery ward, in Toulouse's teaching hospital.

Materials and Methods We analysed the prescriptions for LNZ between 1 January 2011 and 1 August 2012, collecting data on: type of infection, germ and antibiotic sensitivity, treatment duration, total cost of antibiotic treatment.

Results When fosfomycin was still available, LNZ was only prescribed to six patients, none of whom was treated for NM-NBA. When fosfomycin became unavailable, 72 prescriptions were written for LNZ, of which 59 (82%) were for NM-NBA. Of these 59 prescriptions, 54 (92%) were initially empirical; 45 (76%) were revaluated at day 3 with advice from a senior infectious disease specialist, which resulted in 19 treatment discontinuations (42%). Moreover, 29% (17/59) of identified germs were multi-resistant and

in 44% of cases (26/59) no germ was isolated. In one case, the isolated germ was resistant to LNZ. The substitution for fosfomycin by LNZ has led to an estimated extra cost of 2014 euros per month. Conclusions Unavailability of fosfomycin has led to a strong increase in the use of LNZ, particularly for the treatment of NM-NBA, causing extra costs and increasing the risk of LNZ resistance. Careful use of this antibiotic, with the contribution of Hospital Pharmacists, should help us preserve its potential.

No conflict of interest.

# DGI-073 THE USE OF TRABECTEDIN IN METASTATIC SARCOMA: CASE REPORT OF YOUNG MALE TREATMENT

doi:10.1136/ejhpharm-2013-000276.339

G Bellavia, TM Messina Denaro, C Scorsone. Ospedale Giovanni Paolo II, Pharmacy,

**Background** Trabectedin is a DNA minor groove binder of marine origin. It is indicated for the treatment of adult patients with advanced soft tissue sarcoma after failure of anthracyclines and ifosfamide, or for patients unsuited to receive these agents. In Italy it has been approved since 2009 and it has been included in the Register Monitoring Cancer Drugs.

**Purpose** To asses the safety and efficacy of treatment for a 28-yearold male patient, with inoperable metastatic sarcoma, not responsive to ifosfamide or anthracyclines

Materials and Methods The oncologist draws up a treatment protocol that is checked by the hospital pharmacist prior to preparation in the Clean Room. The patient was treated with 3 mg of trabectedin in elastomeric pump of 5 ml/h for 24 hours. This treatment was performed every 21 days.

**Results** From August 2010 to February 2012 the patient was given trabectedin at the standard dose of 1.5 mg/m<sup>2</sup>. The first TAC in October 2010 showed stable disease. In March 2011, after 10 cycles, he was still progression-free. The disease started to progress only after 22 cycles. At the beginning of the treatment the patient had abdominal pain, at the end of it, he has neutropenia and increased levels of transaminases. The time to progression (TTP) was 20 months, while in a randomised study TTP was 13.9 months.

Conclusions Trabectedin treatment in soft tissue sarcoma was well tolerated with a good safety profile, demonstrating also a low grade of side effects and a greater time to progression in comparison with the published studies.

No conflict of interest.

## DGI-074 TREATMENT AND PROGNOSIS IN PATIENTS WITH WALDENSTROM'S MACORGLOBULINEMIA

doi:10.1136/ejhpharm-2013-000276.340

A Izquierdo, S Martínez, A Alfaro, M Merchante, L Sanchez-Rubio, A Zorzano, MF Hurtado. San Pedro Hospital, Hospital Pharmacy, Logroño, Spain

Background Waldenstrom's macroglobulinemia (MW) is an uncommon lymphoproliferative disorder of the B cells, associated with overproduction of the monoclonal component Immunoglobulin M (IgM).

Purpose To analyse the treatment and outcome of patients with

Materials and Methods Observational, retrospective and descriptive study of all patients diagnosed with MW from 2001 to the present day. A cytostatic dispensing programme (OncoGest) and the electronic history (Selene) were used to gather the following data: gender, age, year of diagnosis, previous treatments, treatment regime, adverse reactions. The treatment response was rated according to symptom let-up and decrease in the serum IgM.

Results 8 MW patients were included, their average age was 72 years old (rank: 51–82), of which 50% were male.

The symptoms with which patients presented before commencing treatment included: asthenia (100%), anorexia, peripheral neuropathy (37.5%), anaemia (25%), hyperviscosity syndrome (62.5%); 40% of patients required a session of plasmapheresis.

Various treatment regimens were used: Two of the patients commenced treatment with fludarabine, one started with cladribine and two with chlorambucil. Patients with fludarabine had a good response and in the other three cases the response was quite low; as a result, treatment was changed to weekly rituximab until the symptoms stopped and the IgM decreased. Three of the patients started treatment with weekly rituximab with a good response in two of the cases and one had a low response so the treatment was changed to rituximab with cladribine.

All patients except one who is currently receiving rituximab and cladribine have had relapses after the first treatment. They were treated with weekly rituximab until the symptoms stopped, except in two of the cases, who currently continue with maintenance rituximab every two and three months respectively.

As regards tolerance and adverse reactions, neutropenia appeared in just one patient treated with chlorambucil, the treatments were well tolerated by the remaining patients.

**Conclusions** Various drugs are used for the treatment of MW: chlorambucil, fludarabine, cladribine and rituximab, alone or in combination. The treatment regimen the most commonly used, especially if weekly rituximab, especially for those patients that have had relapses with other treatments. Weekly rituximab is a treatment with a good response rate and is well tolerated.

No conflict of interest.

## DGI-075 USE OF BOTULINUM TOXIN TYPE A IN POLAND: SYSTEMATIC REVIEW AND QUESTIONNAIRE SURVEY

doi:10.1136/ejhpharm-2013-000276.341

<sup>1</sup>S Shergill, <sup>2</sup>A Miasek, <sup>3</sup>M Borowiack, <sup>3</sup>I Czarny-Ozga, <sup>3</sup>W Moczynski, <sup>3</sup>J Stelmachowski, <sup>3</sup>B Slazak, <sup>3</sup>M Wachal. <sup>1</sup>Allergan Ltd, Health Economics Pricing Reimbursement and Access, Marlow, UK: <sup>2</sup>Allergan Ltd, Health Economics Pricing Reimbursement and Access, Warsaw, Poland; 3Arcana Institute, Health Economics, Krakow, Poland

**Background** Each botulinum toxin type A product is a unique biological. Due to differences in physicochemical characteristics, measurement of unit doses and dosing regimens they cannot be considered as biosimilars.

**Purpose** To assess the relative doses used in clinical practise of two different brands of botulinum toxin type A, Dysport and Botox, in focal dystonias (FD), hemifacial spasm (HS) and juvenile cerebral palsy (JCP).

Materials and Methods A systematic review of studies conducted in a variety of countries. The comparison of Dysport with Botox was carried out in accordance with guidelines from the Cochrane collaboration and AHTAPol (Agency for Health Technology Assessment in Poland). Search terms included botulinum toxin type A, dystonic disorders, blepharospasm, hemifacial spasm and cerebral palsy. Concurrently an electronic survey was conducted of eleven Polish doctors, which captured data from 101 of their patients.

Results The systematic review of studies of treating FD and HS with botulinum toxin type A found that where 1.00 unit of Botox is used to treat a patient, between 2.56 and 5.00 units of Dysport are used to treat a patient diagnosed with the same condition. No clinical trials comparing Dysport to Botox were found for JCP. Mean age and percentage of female patients included in the survey was 58.3, 54.7 and 8.9 years; 59.5%, 45% and 40.7% for FD, HS and JCP respectively. Based on information from patient data collected and surveyed doctors' estimates, the doses for Dysport reflected a broad