parameters were analysed during 6 months of follow-up after starting anticoagulation therapy with acenocoumarol.

Results One hundred and eighteen patients (mean age: 73 ± 12 years; 55.7% male) treated with acenocoumarol therapy and monitored for dose adjustment were recruited.

The frequency of different genotypes according to stable anticoagulation status is shown in Table 1. Table 2 shows the frequency of genotypes in stable anticoagulated patients classified by stable anticoagulation dose (High: >28 mg/week; Intermediate: 7–28 mg/week; Low dose: <7 mg/week).

The stable anticoagulation status was not associated to any gene polymorphism, and the stable anticoagulation dose was only associated to CYP2C9*3 (0.047).

Conclusions The achievement of a stable anticoagulation status is not associated to VKORC1, CYP2C9*2, CYP4F2*2, CYP2C19*17 or MDR1-C3435T gene polymorphisms, although the stable anticoagulation dose is associated to CYP2C9*3.

Abstract DGI-68 Table 1 The frequency of different genotypes according to stable anticoagulation status

			Stable		Total	p-value
Gene polymorphism	**Genotype**	**n**	**No**	**Yes**		
VKORC1*2 (rs9923231)	CC	44	30	14	115	0.758
	CT	57	40	17		
	TT	14	11	3		
CYP2C9*2 (rs1799853)	CC (WT)	82	61	21	117	0.223
	CT	33	20	13		
	TT	2	2	0		
CYP2C9*3 (rs1057910)	AA (WT)	98	69	29	116	0.724
	AC	18	14	4		
CYP4F2*3 (rs2108622)	CC (WT)	53	38	15	117	0.352
	CT	50	33	17		
	TT	14	12	2		
CYP2C19*17 (rs12248560)	GG (WT)	85	59	26	113	0.729
	GA	27	20	7		
	AA	1	1	0		
ABCB1 C3435T (rs1045642)	CC (WT)	31	22	9	118	0.864
	CT	56	41	15		
	TT	31	21	10		

VKORC1: Vitamin k epoxide reductase complex,subunit 1; CYP2C9*2: Cytochrome P450 family 2, subfamily C,polypeptide 9, allele variant:2; CYP2C9*3 Cytochrome P450 family 2, subfamily C,polypeptide 9, allele variant: 3; CYP4F2: cytochrome P450, family 4, subfamily F, polypeptide 2; CYP2C19 Cytochrome P450 family 2 subfamily C,polypeptide1 9;ABCB1: ATP-binding cassette, subfamily B, member 1.

Abstract DGI-068 Table 2 The frequency of genotypes in stable anticoagulated patients classified by stable anticoagulation dose

Gene polymorphism	**Genotype**	**Stable**	**Low dose**	**Intermediate dose**	**High dose**	**p-value**
VKORC1*2 (rs9923231)	CC	13	0	13	1	0.280
	CT	17	1	15	1	
	TT	3	1	2	0	
CYP2C9*2 (rs1799853)	CC (WT)	21	1	18	2	0.498
	CT	13	1	12	0	
CYP2C9*3 (rs1057910)	AA (WT)	29	1	27	1	0.047
	AC	4	1	2	1	
CYP4F2*3 (rs2108622)	CC (WT)	15	1	14	0	0.685
	CT	17	1	14	2	
	TT	2	0	2	0	
CYP2C19*17 (rs12248560)	GG (WT)	26	2	22	2	0.542
	GA	7	0	7	0	
ABCB1 C3435T (rs1045642)	CC (WT)	9	1	8	0	0.430
	CT	15	1	12	2	
	TT	10	0	10	0	

(High dose: >28 mg/week; Intermediate dose: 7–28 mg/week; Low dose: <7 mg/week)

No conflict of interest.

DGI-069 THE IMPORTANCE OF CLINICAL PHARMACIST COUNSELLING IN IMPROVING PATIENT MEDICATION ADHERENCE

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Background Adherence is a key factor in achieving good clinical outcomes in patients undergoing long-term treatment. Meeting with patients is fundamental in educating them on correct drug use, and recommending dietary and lifestyle changes.

Purpose To assess the clinical pharmacist (CP) counselling programme, up to the discharge and outpatient visits, to improve medicines adherence, reduce adverse drug events, and encourage positive behaviour.

Materials and Methods CP counselling was addressed to adult abdominal and cardiac surgery patients, including transplanted patients. The topics discussed were: importance of prescribed drugs and therapeutic indications, directions, and potential side effects. A drug information sheet was given to all patients. A survey was then conducted by the ISMETT Pharmacy Service from 1 May to 30 September 2012.

Results The survey included 524 patients, of whom 54.6% were transplant patients and 45.4% cardiology patients; 326 were male and 198 female, with a mean age of 56 ± 15.1. Of these patients, 97.5% (511/524) knew that respecting therapeutic recommendations improves outcomes and 85.3% (447/524) reported that the CP had explained the importance of correct dosage and mode of administration. However 11.5% (60/524) didn't know the correct mode of administration and 6.3% (33/524) didn't take their drugs on time. 4.8% (25/524) reported occasionally missing a dose, 32% of them (8/25) because of a lack of symptoms, and 68% (17/25) because of a regimen of multidrug treatment. CP counselling was repeated for patients who didn't completely adhere to treatment. For clinical reasons and to increase patient compliance, the physician and CP changed the treatment from mycophenolate mofetil to mycophenolic acid for 7 patients, from immediate release tacrolimus to an extended release formulation for 1, and from mycophenolate mofetil to everolimus for 1. All patients reported that CP counselling had a positive effect and 58.6% asked to meet with the CP more often.

Conclusions Our survey confirmed that CP counselling improves patient outcomes and safety, results in stricter adherence to treatment and changes in patient behaviour, and contributes to better outcomes and faster convalescence.

No conflict of interest.

DGI-070 THE PURPLE WASTE STREAM – HOW NORTH BRISTOL NHS TRUST (NBT) DEALS WITH HAZARDOUS WASTE MEDICINES

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Background All hazardous pharmaceutical waste must be clearly identified, segregated and consigned with the six digit European Waste Catalogue code (18 01 08) within purple-lidded containers to permit safe destruction. [The Hazardous Waste (England and Wales) Regulations 2005 (amended 2009)].

Within NBT, as for most UK hospitals, the route for the disposal of cytotoxic pharmaceutical waste was well established, but did not include cytostatic material.

Purpose To adopt a new mechanism throughout NBT to:

- Identify and segregate hazardous waste
- Raise awareness and train staff to manage waste legally
- Introduce new hazardous labelling and patient 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 staff for advice.

No conflict of interest.

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

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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 hospital.

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

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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