

# CPC-089 MULTIDISCIPLINARY COLLABORATION IN THE TREATMENT OF PAEDIATRIC HEMATOPOIETIC TRANSPLANT REJECTION WITH ALLOGENEIC MESENCHYMAL CELLS. A CASE REPORT

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**Background** Advanced treatments represent a source of hope for rare diseases. However, they are complex as they require the participation of several professionals and experience is necessary for optimal use.

**Purpose** To describe the outcome and collaborative multidisciplinary process undertaken for the appropriate use of allogeneic mesenchymal cells (AMC) in the treatment of graft versus host disease (GVHD) developed by a paediatric patient after hematopoietic stem cell transplantation.

**Materials and Methods** Retrospective study of clinical outcomes, steps taken and requirements for the preparation of AMC (Prochymal). The case involved a 2-year-old paediatric patient with steroid-refractory severe GVHD with severe gastrointestinal manifestations. The treatment involved the administration of two doses per week for a total period of 4 weeks. If the patient responds completely or not at all, the treatment is completed, if there is a partial response the treatment can be completed plus an additional weekly dose for 4 extra weeks.

**Results** There was cooperation between the Paediatrics, Haematology and Pharmacy Services. A protocol was developed for use based on the instructions provided by the supplier. Pharmacy processed the application as a compassionate use (expanded access clinical trial) with the agreement of the supplier and hospital management. Haematology built on its expertise in handling blood cells to ensure storage (−135°C) and initially collaborated with Pharmacy in the preparation of the doses: controlled defrosting, bottling and packaging in aseptic conditions. The treatment resulted in a partial response at completion so an additional cycle was administered. No adverse reactions to AMC were observed.

**Conclusions** Interdisciplinary collaboration through the optimization of hospital resources and the rapid training of participating staff allowed the administration of a new and urgent treatment of advanced treatment, allogeneic mesenchymal cells. Tolerance was good and the response to treatment was initially favourable.

No conflict of interest.

# CPC-090 MUPIROCIN RESISTANT METICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) – DO PATIENTS GET THE CORRECT DECOLONISATION AFTER SCREENING?

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**Background** MRSA screening has been mandatory in England for two years. Mupirocin is used routinely for MRSA-positive patients but there is some resistance.

**Purpose** A prospective audit was undertaken of all mupirocin-resistant MRSA screens to see if patients were put on the correct treatment.

**Materials and Methods** From October 2011, all in-patients with high level mupirocin or neomycin MRSA resistance were followed up by a pharmacist. Patients on ineffective decolonisation regimes

were changed to the correct regime, and ward staff educated. Results to March 2012 were shared, and then monthly thereafter. Education was delivered at speciality and ward level. Any subsequent failures were reported as clinical incidents.

**Results** The percentage of patients that were MRSA positive on screening on admission into hospital or at pre-elective screening remained stable at 2.3% during both periods. Worryingly high-level mupirocin resistance had increased from 12.2% to 19.7%. It had doubled to 24% by June! Despite audit, education and feedback, the proportion of patients with known MRSA on admission and those still in hospital when the result from the admission screen was released, on the correct decolonisation regime, got worse. There has been no improvement using senior staff or ward infection control link nurses to rebrief their staff on the documented procedure.

**Conclusions** MRSA carriage on screening is low. Current systems appear too complex despite multiple interventions. As a failsafe, these patients should be followed up. Posters and screensavers have since been introduced. The prospective audit continues. All centres should review their current practise to ensure patients get prescribed effective MRSA decolonisation.

## Abstract CPC-090 Table 1

	Oct 2011–Mar 2012	Apr–Jun 2012
Screens	49177	17926
MRSA positive	2.3%	2.3%
High level mupirocin resistance	12.2%	19.7%
And also neomycin resistant	8.6%	4.6%
Correct on admission (from previous screen results)	23%	12%
Correct after current admission screen result released	40%	27%

No conflict of interest.

# CPC-091 NATALIZUMAB IN CYPRIOT PATIENTS WITH RELAPSING REMITTING MULTIPLE SCLEROSIS: THREE YEAR DATA ON SAFETY, EFFICACY AND FREQUENCY OF ANTI-JC VIRUS ANTIBODIES

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**Background** Natalizumab (NAT) is a recombinant humanised anti-α4-integrin antibody used in treating Relapsing Remitting (RR) Multiple Sclerosis (MS).

**Purpose** To evaluate the long-term safety and efficacy of NAT in Cypriot patients, to assess the frequency of anti-JC Virus (JCV) antibodies and implement a strategy for the prevention of PML.

**Materials and Methods** Twenty-two patients were studied prospectively for 3 years.

The patients received 300 mg of NAT intravenously every 4 weeks. MRI examinations were performed at study entry and 12–24 months after the start of treatment. JCV antibody testing was performed after two years of treatment.

**Results** Six patients (27.3%) discontinued the study due to: Severe allergic reaction (9%), generalised atony, fatigue and weakness (4%), recurring herpes infection (4%), family planning (4%) and presence of anti-JCV antibodies (anti-JCV positive) due to previous immunosuppressive therapy (4%).

Most frequently reported side effects were: cardiovascular (41%), general (41%), laboratory abnormalities (41%), gastrointestinal (23%), neurological (18%), allergic reactions (18%) and depression (14%).

After three years of NAT treatment, a 55.2% decrease from the baseline mean annual relapse rate was observed, as well as improvement of 0.3 points on the mean Expanded Disability Status Scale (EDSS) Score.