

## ABSTRACTS COLLECTION



# The 48<sup>th</sup> Annual Meeting of the European Society for Blood and Marrow Transplantation: Quality Management Group – Poster Session (P607-P610)

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## Quality Management Poster Session

### P607

#### Impact assessment of second and third wave of SARS-Covid19 pandemic on allogeneic transplant activity through the JACIE annual management review of a single transplant program

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**Background:** The annual management review, according to the JACIE standards, plays a crucial role in the critical evaluation of the Haematopoietic Stem Cell Transplant (HSCT) programs activity. During the last 2 years, the spread of the SARS-Covid19 pandemic represented an unprecedented health condition with a significant impact on clinical outpatient management of donor/recipient pairs and inpatients path organization at the Transplant Programs (TP). In this context, the annual management review may be considered as a useful tool to analyze the impact of the SARS-Covid19 on HSCT activity.

**Methods:** The 2021 annual management review, at the Transplant Program of the AORN Cardarelli in Naples, also aimed to evaluate the impact of the 2nd and 3rd wave of SARS-Covid19 on the allogeneic HSCT activity. The period time of the 2nd and 3rd wave was identified October-December 2020 and February-May 2021, respectively, according to the Italian competent authority. Overall, 34 hematological patients with indication to allogeneic HSCT were enrolled in this analysis because of referred to the TP during the 2nd and 3rd pandemic wave. The diagnosis was AML, ALL, Lymphomas, MDS/CML, and SAA in 12, 10, 5, 6, and 1 cases, respectively, 19 males and 15 females with a median age of 44.8 years (range 16-66).

**Results:** In this cohort of 34 patients, 17 (50%) performed allogeneic HSCT, 8 are planned for the transplant procedure, 9 lost the HSCT eligibility, of whom 5 for SARS-Covid19 infection, 3 for

primary refractory disease and 1 for performance status deterioration. Overall, SARS-Covid19 infection occurred in 9/34 cases (26.5%), of whom 4 underwent HSCT (2 in advanced phase) while 5 did not it because of refractory relapse after SARS-Covid19 infection. Of them, 4/5 died for the underlying disease and one is in 3rd PR, after salvage therapy, in the screening phase before transplant procedure. The median time from indication to allogeneic HSCT was significantly worse ( $p < 0.0001$ ) for patients who experienced SARS-Covid19 infection compared with those who did not have: 10 (7-12) versus 3.8 months (1-6). The comparison between the 2020 (N = 29) and 2021 (N = 21) allogeneic HSCTs showed a reduction of 27.5%, related to SARS-Covid19 infection in 62.5% and to the necessity to face the pandemic in the inpatient's population, in 37.5% of cases. Our analysis highlighted the stop of hospitalizations to the TP for 40 days and 30 days, during the 2nd and 3rd wave, respectively. The causes were pneumonia occurrence in one inpatient patient during allogeneic HSCT (2nd wave) and to SARS-Covid19 spread in inpatients of Hematology Division with the consequent need to transfer non Covid19 patients to the clinical unit of TP (3rd wave).

**Conclusions:** Our annual management review led to identify SARS-Covid19 pandemic as a main cause (62.5%) of allogeneic HSCT activity reduction in 2021, compared to 2020, and a significant delay with a consequent switch to worse disease status at transplant in 50% of patients. This analysis confirms the importance of working according to the methods of JACIE quality standards to better understand the clinical activity data.

**Disclosure:** none

### P608

#### The impact of COVID 19 on multidrug resistant bacterial infection rate in a HSCT unit in India

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**Background:** During the COVID-19 pandemic, several Infection Prevention and Control (IPC) measures had been introduced to

reduce nosocomial microorganism transmission and these also help reduce the spread of MDR bacteria. We aim to analyse the trend of MDR bacterial infections over the past four years as in May 2020 we enforced a strict hand washing policy during the COVID 19 pandemic and performed HSCT in two different areas with less than 75% occupancy at all times.

**Methods:** We reviewed all the bloodstream infections (BSIs) between 2017 and 2021 in our HSCT unit and focused on the enterobacteriaceae (CRE) and their sensitivity pattern.

**Results:** We performed a total of 468 HSCT procedures and the incidence of culture positive BSIs was 14.4% in 2018, 19.5% in 2019, 22.5% in 2020 and 7.8% in 2021. CRE caused infections in 9/19 (47%) in 2018, 13/27 (48%) in 2019, 3/16 (18%) in 2020 and 4/11 (36%) in 2021. The trend of carbapenem resistant *Klebsiella* has been the most striking with 5/19 (26.3%) in 2018, 11/27 (40.7%) in 2019, 3/16 (18.7%) in 2020 and 0/11 in 2021 (0%). CRE rates were lowest during the peak periods of the pandemic in our unit.

CRE Enterobacteriaceae trend

YEAR	E.Coli	Pseudomonas	Klebsiella
2018	2/3	2/4	5/5
2019	4/5	0/3	9/11
2020	2/2	0/1	1/2
2021	4/6	0/3	0/0

**Conclusions:** This study demonstrates that maintaining a high level of preventive measures could help tackle an important health problem such as the spread of multidrug resistant bacterial infections. The COVID-19 pandemic and its associated healthcare efforts have given us the opportunity to understand that simple measures such as hand hygiene and reduced occupancy help eliminate lethal CRE infections that result in significant morbidity and mortality in children undergoing HSCT.

**Clinical Trial Registry:** Nil

**Disclosure:** Nil

## P609

**How hematopoietic stem cell transplantation activity was affected during the pandemic? JACIE accredited center reflex**

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**Background:** The aim of this study is to examine the measures taken during the pandemic, both throughout the hospital and in our transplant center, between March 2020 and April 2021, and to investigate how JACIE accreditation affects patient, donor, product, and employee safety in this process.

**Methods:** The measures taken in the stem cell transplant center regarding the patient, donor, stem cell product, and employee safety were analyzed in 3-month periods starting from March when the first case was seen in Turkey. The accuracy of all data was checked by the data control group established in accordance with JACIE accreditation.

**Results:** Six patients who were ongoing the transplant process in the clinical unit were diagnosed with Covid-19 infection and 2 patients died. Covid-19 positive was detected in 2 unrelated donors and 5 related donors. Of the 15 patients whose transplantation was postponed, 3 of them relapsed. During the pandemic, no stem cell product collected from any patient or

donor has been frozen prior to transplantation. In our center, information meetings for patients and donors were held using online methods (skype, teams, zoom) for consent procedures. Among the staff working in the stem cell unit, 1 doctor, 3 nurses from the clinical unit, 1 employee from the apheresis unit, and 4 employees from the cell processing unit were diagnosed with the covid-19 infection. Only 1 doctor had a severe clinical course and needed intensive care. In addition, the hematology service, bone marrow transplant unit, and hematology laboratory staff were evaluated daily for Covid-19 symptoms, and PCR testing was performed weekly for Covid-19 during the periods when the epidemic increased. All healthcare workers who tested positive even though they had no symptoms were placed in home quarantine for 14 days, and bone marrow transplant center employees for 21 days. Stem cell transplants were postponed during the first three months of the pandemic, except for emergencies. In this regard, the Ministry of Health and EBMT guidelines were followed closely. In terms of quality management activities; training and all other meetings and audits were suspended. No face-to-face meetings were held for the first 6 months of meetings were planned with limited participation. Some of the urgent training and meetings were allowed to be held online. While our center was in the 3rd JACIE Accreditation period, the application was suspended.

**Conclusions:** The COVID-19 pandemic still continues with unknown global effects. Despite all the precautions taken, the number of confirmed cases and the presence of patients in need of intensive care treatment draw attention. Implementation of international quality standards in the field of cellular therapies will reduce the impact of changing environmental conditions on critical processes related to patients, donors and products. We believe that the results of our study will be a guide for centers serving in the field of cellular therapies and aiming to adopt a quality management system.

**Disclosure:** No conflict of interest

## P610

**A big fish in a big pond quantifying and highlighting Alder Hey's contribution to clinical activity and patient experience throughout their journey to transplant**

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**Background:** Alder Hey Children's Hospital cares for over 330,000 children, young people and their families every year.

As one of Europe's biggest and busiest children's hospitals, we treat everything from common illnesses to highly complex and specialist conditions including Autologous Transplants.

The AuSCT at Alder Hey has provided a dedicated service to children and young people with cancer treated within the unit's catchment area which includes Merseyside, Cheshire, North Wales and the Isle of Man since 1996. The needs of our patients whom we serve are paramount, and we strive to provide exceptional care and outcomes.

The Transplant team at Alder Hey also has the important role of co-ordinating the care of Allogeneic patients being referred for Bone Marrow Transplant (BMT) and Car-T treatment to other local Northwest BMT Centres.

We are proposing to audit and quantify our clinical activity of the transplant patients and gain an insight of the patient's personal journey within a 12-month period.

We also want to also highlight the important role that we play as an autologous transplant centre and the involvement that we have in the allogeneic patients that we refer to other centres.

**Methods:** The BMT Nurse Specialist and Quality Manager will collect numerical data on specific clinical activity e.g. referral numbers, pre bone marrow/stem cell work up assessments and patient experience, including a patient survey. The data will be quantified and displayed as a potential poster presentation in graph form and showing the responses and feedback from the patient survey.

**Results:** We propose to display and quantify our activity and results as a poster presentation.

The results show that although we have minimal numbers of autologous transplant activity, the responsibilities in maintaining the standards in the care of these patients equates to other centres that have higher volumes of patient activity.

When the results have been quantified, looking at the allogeneic patient activity prior to referral this shows over 1200 visits to Alder Hey in the 12-month period between 14 patients.

This includes clinic visits, investigations, MDT discussions in preparation for bone marrow transplant.

**Conclusions:** Although we don't have the volume of activity as other transplant center's, it is evident and we can emphasize our significance as a JACIE accredited center that we still have the same level of responsibility and quality of care to our patients throughout the whole journey to transplant. It is evident that the impact that COVID has had on the National Health Service and in line with this we have had to minimize patient face to face visits as recommended in EBMT guidelines. However, we have maintained our care delivery and service standards throughout. Our recent patient survey confirms that overall our patients are still experiencing a positive patient journey in care and service delivery during the pandemic.

**Disclosure:** No conflicts of interest.