

## Pilot Study Report on [www.bmtcare.com](http://www.bmtcare.com)

### Interactive Training Portal for Pediatric Bone Marrow Transplantation Nurses Project

#### TURKEY

This pilot study report on [www.bmtcare.com](http://www.bmtcare.com) interactive training portal for BMT nurses aims to conclude the feedback received via trainee satisfaction survey applied after the pilot studies in Turkey and interviews during the study sessions in a way to propose main strengths, weaknesses and benefits of the bmtcare web portal as well as mentioning expectations and possible improvements suggested by the target groups.

The pilot studies in Turkey were mainly conducted in five different centers and brief information was provided on each center, as well as information on the demographics of the participants in line with the answers provided in **Part A: Personal Information of the Trainee Satisfaction Survey** (consisted of items of gender, age, education, institution, job title, experience, previous trainings). Following the introductory information, a summary of feedbacks will be provided on the basis of questions in the **Part B: Participants' Feedback of the Trainee Satisfaction Survey**.

1. Pediatric BMT Unit, Ankara Pediatric and Pediatric Hematology Oncology Training and Research Hospital, Ankara, Turkey

This unit has been established in order to follow-up pre-transplantation phase of the infant patients who need hematopoietic stem cell transplantation (HKH) treatment, HKH transplantation and make post transplantation pursuing and transplantation service with international standards. It's one of the referral pediatric BMT units in Turkey with 11 bed capacity. The list of participants, surveys filled by the participants, and photos from the pilot study is attached to this report as ANNEX 1.

2. BMT Centre, Anadolu Medical Center, İstanbul, Turkey

Anadolu Medical Center Bone Marrow (Stem Cell) Transplant Centre include a Bone Marrow outpatient clinic, Bone Marrow Inpatient Clinic, HLA Typing Laboratory, Hemapheresis Laboratory, Cryopreservation and Stem Cell Processing Laboratory. Cancer is diagnosed at a molecular level using Flow Cytometry and PCR ensuring

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close observation on treatment effectiveness. Specialists study patient's molecular risk profile and develop a treatment plan specifically tailored for the individual. Bone Marrow (Stem Cell) Inpatient clinic features 22 beds on two levels.

### 3. BMT Unit, Akdeniz University Hospital, Antalya, Turkey

Will be added.

### 4. BMT Unit, İhsan Doğramacı Children's Hospital, Hacettepe University Hospital, Ankara, Turkey

Hacettepe University Children's Hospital is the biggest and the main university referral hospital in Turkey for childhood diseases including malignant and non-malignant diseases. Yearly 7500 in-patients and 222.500 out-patients are followed in the Children's Hospital. Hacettepe University, Faculty of Medicine, Pediatric BMT unit has 4 patient rooms. Approximately 300 children have been transplanted in the Unit and yearly 20-25 patients undergo HSCT. About 60 per cent of the patients have received HSCT for diagnosis of a non-malignant disease and the rest consists of hematological malignancies.

### 5. Hematopoietic Stem Cell Transplantation Nursing Training Course on 21-23 Sep., 2012, Oncology Nurses Association, Ankara, Turkey

The Oncology Nurses Association in Turkey was found in 1989. It's one of the most active associations with a mission of increasing training opportunities for oncology nurses and contributing to the quality of healthcare services in Turkey. Among the main targets, organization and dissemination of continuous training programs for oncology nurses, and to keep knowledge and abilities of oncology nurses at the highest level take place.

**“Part A: Personal Information”** of the Trainee Satisfaction Survey consisted of questions on participants' demographics. According to the analysis run with SPSS, there were total of 46 participants in the 5 pilot studies who returned the surveys, 2 cases were eliminated from the analysis due to missing information and 44 participants remained. All of the participants were female, average age of the participants was 30 (standard deviation=5,45), and average experience in terms of years was 8,4 (standard deviation=6,05). 20 of the participants have BMT nurse job

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title, 6 participants have nurse in charge job title, 16 of the participants were just nurses or service nurses, and 2 participants have other job titles. 79 per cent of the participants mentioned that they have previous training experience.

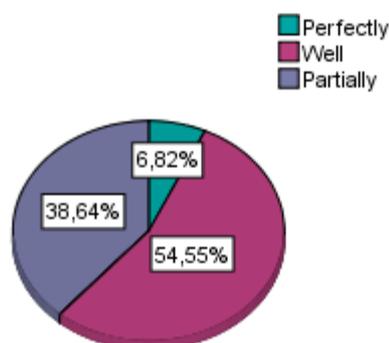
**“Part B: Participants’ Feedback”** of the Trainee Satisfaction Survey consisted of participant’s ratings and comments on bmtcare e-training portal. There were total of 11 questions aimed at assessing relevancy, validity, adequacy, and clarity (understandability) of the bmtcare web portal, and example items are: “How did bmtcare.com meet your expectations?”, “How do you assess the bmtcare.com course content?”, “How do you assess the audiovisual material provided with the course?”, and “How did the course cover the information that you apply/use in your routine work?”.

A conclusion and assessment of the feedback based on questions in **“Part B: Participant’s Feedback”** is provided below.

### PART B: PARTICIPANT’S FEEDBACK

#### 1. How did bmtcare.com meet your expectations?

How did bmtcare.com meet your expectations?



As it can be seen in the above table, most of the participants’ expectations were met either perfectly or well by bmtcare web portal. Some (38,6 per cent) of the participants mentioned that their expectations were met only partially. This can be interpreted as that bmtcare e-training web portal has potential to meet expectations from an e-training portal of the bone marrow transplantation in Turkey.

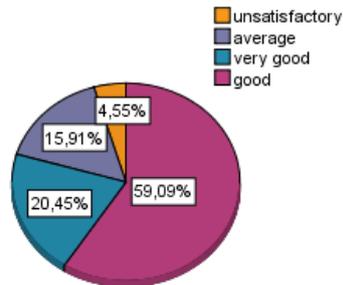
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## 2. How do you assess the bmtcare.com course content?

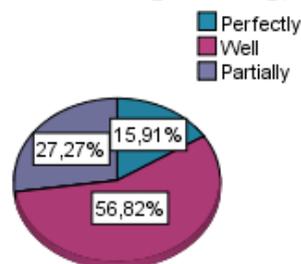
How do you assess the bmtcare.com course content?



More than 80 per cent of the participants assessed bmtcare course content as either good (59,09 per cent) and very good (20,45 per cent). This may have an implication on that most of the content that is relevant to BMT nurses' vocational domain is covered by the bmtcare web portal. This may be resulting from the needs assessment conducted before starting to the content development phase of the project as well as incisive topic selection of the technical team based on their previous knowledge of the domain. Although the frequency of the raters who rated the content as "unsatisfactory" is low, a good strategy to improve the content based on this feedback would be including the content suggested by the participants as an answer to the Question No.10 of the survey "please provide a list of content that you wish to be included in the course content", upon evaluation of the team of experts.

## 3. If you had questions during training, were they answered?

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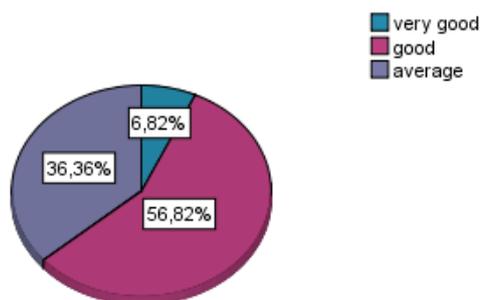


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More than 70 per cent of the participants mentioned that their questions during the training were answered either perfectly or well. Some participants (27,27 per cent) mentioned that their questions were answered only partially. As a strategy to be able to provide answers to the questions of the trainees during the training, forum area of the portal may be used more actively, and participation to the forum discussions can be enhanced. In addition to this, a “post a question” or “ask the experts” type of question posting area can be generated within e-learning part of the portal.

#### 4. How do you assess the audiovisual material provided with the course?

How do you assess the audiovisual material provided with the course?



More than 60 per cent of the participants assessed the audio-visual material within the bmtcare web portal either good or very good. However, the ratio of those who mentioned that the audio-visual material provided by bmtcare is average and this ratio is not negligible. Alternative strategies should be developed to enhance audio-visual dimension of the training material beyond the project life-cycle.

#### 5. How do you assess the duration and detail of the courses?

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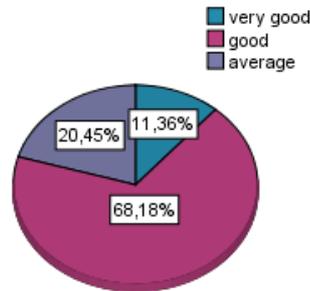
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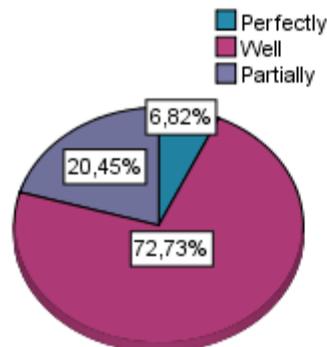
### How do you assess the duration and detail of the courses?



The duration and detail of the course were evaluated by almost 80 per cent participants as good or very good. No specific comments were made by the participants to this particular question. However, the content suggested by the participants to be included may have an effect on duration and detail level of the courses, and probably it should be better to follow the recommendations brought by the Technical and Pedagogical Evaluation Reports and apply necessary updates, if any.

### 6. How did the course cover the information that you apply/use in your routine work?

#### How did the course cover the information that you apply/use in your routine work?



Almost 80 per cent of the participants responded this question as perfectly or well. The rest of the participants mentioned that the e-training material is partially applicable to their routine work. This question is an important since it has implications for the practical value of the training material developed and

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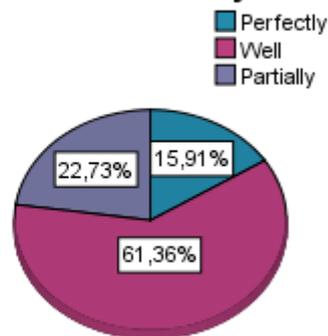


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represented on bmtcare web portal. Based on comments received as the portal is used by more and more users, the content may be updated to respond more practical, day-to-day needs of BMT nurses.

#### 7. How do you assess followability and understandability of the course?

#### How do you assess followability and understandability of the course?



About 77 per cent of the participants responded this question as either perfectly or well. The rest of the participants mentioned that they found the course material partially followable and understandable. This question is aimed to receive feedback on users' perception of user friendliness of the content of the e-training material. It seems that there is room for improvement regarding this aspect, and it may be beneficial to take recommendations in Pedagogical Evaluation Report prepared on bmtcare web portal into consideration.

#### 8. How will you be able to use the information and practices you learned during the course in your professional life?

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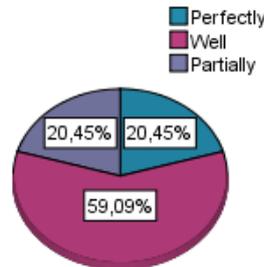
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**How will you be able to use the information and practices you learned during the course in your professional life?**



20,45 per cent of participants answered this question as perfectly, and almost 60 per cent of the participants answered the question as well. Positive responses to this question is particularly important because, the related research suggests that this type of utility-reaction is a good predictor of future training effect, thus it seems likely that the information provided by bmtcare e-training web portal is used by the BMT nurses within their everyday work context.

9. If you developed an e-training web portal for BMT nurses, what would you choose to do differently?

Part of the participants responded to this questions, however the reactions are in a constructive manner such that suggesting methods for more effectively f presenting the knowledge and practices. Users generally emphasized that increasing the level of interactivity by audio-visuals, schematization, guidelines, posters and brochures would be good. It was also mentioned that, they may want to include content relevant for also adult BMT, and hematology and oncology nurses. A representative set of responses is provided below:

“I would include standards, different applications, and efficiency-proved methods in nursing care in the content”

“I would focus on question-answer part and I would prepare live-training sessions”

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“It’s great that there is an opportunity for exchanging information on the site. I believe that your portal will meet my training needs.”

“Basic information, case presentations can be added.”

“Different real cases can be presented in an open discussion form.”

“(I would include content on) Team work, training of patients.”

10. Please provide a list of topics that you wish to be included in the course content:

The topics that the participants suggested to be included in the bmtcare course content were listed below. Though, it should be considered that the most of the topics suggested are already covered by the course content:

- Psychosocial support for patient and patient family
- Discharge instructions
- Long-term post-transplant follow-up of patients
- Drug administration and doses
- Pre-transplantation preparations
- Personnel and patient psychology, psychological burden (emotional labor)
- Drug administration related information
- Hemorrhagic cystitis
- JACIE nursing standards
- Mesenchymal stem cell transplantation
- To whom and why autologous stem cell transplantation; to whom and why allogenic stem cell transplantation
- Current approaches in nursing care
- Blood and blood products transfusion
- GVHD
- Allo-immunization
- Sinusoidal obstruction

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- Isolation precautions
- When, in what conditions should the patients return to a normal social life?
- Nutrition aspects
- Isolation precautions
- Fluid/electrolyte balance
- Laboratory findings

### 11. Requests, suggestions, and comments:

Most of the comments included appreciation for filling a gap regarding the training of BMT nurses in Turkey. There were also some topics that are suggested to be included in the bmtcare content, in this area. Finally, interactivity emphasis was repeated in this part. A representative set of responses is provided below:

“Visual representations can be increased. A more user-friendly language interfaces can be prepared. Representation of complications in the BMT process is good. Bmtcare web portal has been successful in demonstrating the complications in BMT process with a nursing perspective. “

“Both the pre-transplant and post-transplant training is extremely important, and therefore there has to be a nurse specified with this task description. The nurse with this job description should provide in hospitalization, and discharge period.”

“Visuals regarding the diseases can be increased. Pre-transplant patient approach can be included in the material.”

“It seems like there is a great effort in the project. This project is original because it’s the first of such projects in Turkey”

“It’s a professional project. I believe, inclusion of other institution to this initiative more knowledge can be developed”

“More videos needed. Videos should be watched without interruptions (due to speed of connection).”

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“I would like to thank to you for initiating this application. Main pages are good. However the green lines in the pages where the courses represented is disturbing, without these lines, the material would be better.”

“This project make me feel that we are not alone as BMT nurses. I evaluate this project as an opportunity to extend our knowledge with different points of view through information and knowledge exchange”

“Whole content should be available in Turkish. A certification program should be organized. Course content should not be limited with BMT nurses”

“More of similar programs should be implemented. Cooperation between centers should be enhanced. ”

Overall, the reactions to the pilot study survey were positive and provided beneficial information for improving the content and interactivity of bmtcare e-training web-portal. This report and all other inputs/feedback from the pilot studies will be evaluated by the technical team of our project, and then the requests and changes required will tried to be reflected to the bmtcare web portal.

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