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# The Royal College of Radiologists RCR-Cyclotron Trust Visiting Fellowships 2014/15 (Clinical Oncology)

### **POST-VISIT REPORT**

**PLEASE NOTE:** This report must be completed and emailed to the RCR within 2 months of the end of your visit.

1. Name of Visiting Fellow	Dr Jacqueline Harney	
2. Name of joint Visiting Fellow		
(if applicable)		
3. Institution(s) of Visiting	Northern Ireland Cancer Centre	
Fellow(s)		
4. Name of Host(s)	Ms Rozina Behroz	
5. Institution(s) of host(s)	University Of Florida Proton Therapy Institute	
6. Expenses claimed	£1244.00	
7. Visit Dates (ACTUAL)	a. Start Date 20/10/15	<b>b. End Date</b> 29/10/15
8. 2 <sup>nd</sup> visit dates (if applicable)	a. Start date: N/A	b. End Date: N/A
9. Aims of the visit		

- To improve my understanding of the principles of Proton Beam Therapy (PBT).
- To gain valuable insight into the "day to day" assessment, planning & delivery of PBT
- To better understand the advantages & limitations of PBT when compared to photon therapy
- To gain experience of PBT planning & delivery for a wide range of tumours
- To see a PBT facility at first hand to enable clear explanation to patients & carers as to how the system works

#### 10. Activities undertaken

- A day spent on all 3 treatment machines observing treatment delivery to both adults & children (+/- anaesthetic). I observed the practicalities of patient set-up snout insertion, 2D imaging, shifts, moulds & compensators etc.
- Tour of PBT centre
- Time spent in physics & dosimetry observing development of PBT treatment plans compensators, use of bolus, on treatment imaging review & both single modality PBT & combined PBT/photon plans
- Observation of plan evaluation by physicians, physics & dosimetrists.
- Useful sessions explaining the difference between double scatter & pencil beam techniques (centre currently moving from one to the other). Also educated about "through & patch" fields & "smearing"
- Analysis & discussion of plans where patients have developed unforeseen toxicities observation/education relating to uncertainty of stopping position, dose at end of beam &
  how small changes in patient anatomy can result in very large (significant) changes in
  dosimetry
- One on one time with a number of physicians discussing the management with PBT of a number of tumour sites – CNS, Lung, Prostate, Pancreas, Breast, Lymphoma & H&N
- Attendance at both new & review patient consultations, both adult & paediatric, observing detailed discussion & consent taking.
- On treatment review of adult & paediatric cases
- Attendance at weekly chart rounds where all cases are discussed, treatment plans are reviewed & all treating physicians are in attendance
- I overlapped with a team visiting from Japan & was fortunate to hear presentations & discussions on carbon ion therapy.
- Attendance at weekly patient lunches this is where patients, both current & returning, get an opportunity to speak of their experiences. There is also an informative talk delivered by one of the consultant staff

### 11. Benefits of the visit (short term)

- Better understanding of the physics, planning & delivery of PBT
- Better understanding of the benefits of PBT
- Better understanding of the limitations & uncertainties relating to PBT
- Wonderful opportunity to observe "up close" & see at "first hand" a very different healthcare system to our own

## 12a Envisaged benefits of the visit longer term (your own practice)

With the opening of 2 UK PBT centres, there will no doubt be an increase in awareness & expectations among our patient population. I feel that this visit will enable me to better assess patients for appropriate referral. We all tend to have some idea of the positive attributes of PBT, what this visit has done is to make me very aware of the significant uncertainties involved in the planning & delivery of PBT

## 12b. Envisaged benefits to the wider group (dissemination to others in your centre/clinical oncology community/multiprofessional team)

- The development of a relationship with UFPTI
- Will be better able to address patient concerns, both now with international referral & in the future with our own centres
- Education of colleagues

## 13. Please outline any problems you encountered before, during or after your visit

None

### 14. Any additional comments

I cannot overstate what a fantastic opportunity this was. To be able to spend time totally immersed in high tech radiotherapy planning & delivery was amazing. To visit another centre & observe a totally different healthcare system was fascinating.

All of the staff at UFPTI were extremely welcoming & very generous with their time

## 15. Do you have any 'top tips' that you would like to share with prospective visiting fellows?

None, other than do a bit of reading around the subject prior to going & I think that the idea of a combined visit (physician & dosimetrist) is very good and will only add to the overall experience.

Signed: exort approved to

Date: 3.11.15

Report approved by: Clinical Oncology Professional Support & Standards Board
Date 21.01.16