Spring Travelling Fellowship

Estonia, May 2019

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Report about my experience during the EFORT Spring Travelling Fellowship in Estonia from 12 to 18 May 2019

EFORT Travelling Fellowship Sprint 2019 (Estonia)

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This year EFORT travelling spring fellowship was in Estonia (1) hosted by the Estonian Trauma and Orthopaedic society (ETOS) (2) with its president Dr Katre Maasalu who is a senior Orthopaedic surgeon based in Tartu. The fellowship was between the 12th of May and the 18th of the month. Tallin and Tartu were the main cities hosted the occasion starting with Tartu and ending in Tallin. There were 12 fellows in total from different European countries including in alphabetical order: Lithuania, Malta, Netherland, Portugal, Romania, Serbia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom (**Photo 1**). All the fellows were either in their last few months of training or residency or just started their specialist positions in their corresponding countries. This fellowship is sponsored by the European federation of national associations of Orthopaedics and traumatology EFORT (3).

All the fellows received an email from Dr Maasalu on the 5th of April with detailed program (1) and instructions on how to reach different destinations. The instructions were very detailed that I didn't need to think about how to organise my travel all what I did is following instructions; this helped to reduce any stress and made me feel very safe to travel to the destinations. I arrived on the 12th of May Sunday morning to Tallin airport from Stansted airport using economy class direct flight. I booked the flights immediately when I was offered the fellowship in March 2019 and the British Orthopaedic Association (BOA) (4) kindly paid for these flights. From Tallin airport I booked direct bus to Tartu as I was instructed and I asked the bus driver to stop at the bus stop next to the hotel we stayed in in Tartu and was booked by the host in advance. The journey lasted two hours and a half but it was very comfortable and I enjoyed looking at the green lands of Estonia, luckily the whether was great as well. Most of the fellows arrived early on that day and we went for a dinner on that day with the Tartu team including our great organiser Annahelena (Photo 2) who is a specialist Orthopaedic surgeon works in Tartu University hospital (5), Dr Maasalu (ETOS president)

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and Professor Aare Martson who is the most senior Orthopaedic surgeon in Tartu hospital and he is the head of both the trauma and the elective Orthopaedic department at Tartu university hospital. After the dinner we went for a walk to Tartu city centre to explore the city and we sat down in a local Pubi (Pub).

On Monday 13th of May, we left the hotel at 7:30 am and we walked to Tartu University hospital (Tartu Ulikooli Kliinikum) (5). We attended the trauma meeting where they discussed the elective and trauma cases from Friday up to Monday. It was unique actually that they discussed even the elective cases during that meeting including cases planned for Monday. This helped us to decide what we want to attend as we were allowed to go to theatre and to assist the surgeons in some of the cases there. There were two main interesting cases: revision of a hip and knee replacement into an intramedullary femur replacement prosthesis for periprosthetic fracture which I attended later in the day as this is my subspecialty interest and the other case was carpometacarpal joint (CMCJ) replacement which is like a THR implant for the first CMCJ performed by Dr Maasalu. While we were waiting for the surgery to start, we had introduction lectures by Dr Maasalu and Professor Martson introducing the department and the university. Tartu hospital is one of the main central hospitals in Estonia and it is a teaching hospital with a capacity of 1264 beds, there are medical students, residents and postgraduate degrees' student (PhD). The clinic of traumatology and Orthopaedics formed in 1992, but the chair in the university was given to this specialty in 1984. Orthopaedic teaching started in Estonia in 1921. The department defended 5 PhD theses over the last 5 years and they have some PhD student from Veitnam in collaboration with Hue University of Medicine and Pharmacy. Their medical research involves mainly bone tumors, Osteoarthritis and Osteoporosis. They also have research on congenital anomalies in children like Osteogenesis imperfecta. We had also presentations from Professor Martson on Arthroplasty and Periprosthetic fractures (Photo 3).

I attended a revision case with mega prosthesis for periprosthetic fracture with Dr Rull, which was interesting. I was really impressed with the level of organisation and the discipline that they have in theatres and the level of cleanness. Nurses are well trained and the consultant usually gets assistance from his resident. The operation went smoothly and there was no delay or complication. The implants were available and they have the same quality of implants we have in the UK.

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At about midday, we had a talk given by Professor Li Fellander-Tsai from Karolinska University Hospital, Sweden. She is the chair of the EFORT travelling and visiting fellowships. She talked about the main key action areas for EFORT including education, Guidelines and clinical standards, European health policy and research (3). It was good overview on EFORT role in the European Orthopaedic advances and health care. We learnt more about other EFORT fellowships and the benefits of this for sharing skills and experience amongst different European Orthopaedic societies.

This was followed by a comprehensive review on new and emerging treatment options for Osteoarthritis by Dr Kaspar Tootsi (6) who has recently defended his PhD thesis. He presented the work he achieved during his PhD and the promises from gene therapy in the treatment of osteoarthritis which might save the health care services in the future.

The final talk for the day was by Dr Alo Rull on the management of periprosthetic femoral fractures in Total knee replacement patients. This was comprehensive talk about this topic and he displayed so many cases and how they manage this type of fractures. He talked about the mega implants they use including the intramedullary femur replacement with preservation of the femoral diaphysis which doesn't require bone healing as you can preserve as much cortex as possible, but it carries high risk of infection.

The social program of this first day was amazing as we started by a short trip as part of south Estonia tour and the bus stopped half way through in a golf club restaurant. The food was excellent in that restaurant and the chef himself with every single meal come and did a short presentation on the food. Just before we arrived to the restaurant we stopped to take a group photo **(Photo 4)**.

The day ended with a splendid Estonian cultural experience to a Sauna party. This included going into the Sauna then jumping into the cold lake with a temperature as low as 4 degrees at that time. Food and refreshments were available throughout. This was opportunity to explore and to discuss many medical topics and to know more about the health system in Estonia and more about the Estonian culture.

On the 14th of May we started again at Tartu hospital where we have more presentations from Professor Martson followed by a trip to theatres again. I attended a big revision case where they used trabecular metal cup. This was a rather challenging case which was very useful for me. I liked the way they

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position the patient using a special leg cushion on top of the side support which helped to abduct the leg without any assistant. What attracted my attention is that the scrub nurses are very experienced and they together with the rest of the theatre staff position the patient, prepare and drape the patient to make the case ready for the surgeon without much correction from the operating surgeon. We had a session also for the fellows to present and to talk about their own countries and experience and to share with others interesting experiences from different European countries.

I have to stop here at theatre staff changing room. It is a very clean area and very organised. The scrubs are mostly new in a very sterile condition. Theatre shoes were hanged on a stand one for the sterile and clean shoes which came out of the washing machine and the other stand for the used and dirty shoes. Each surgeon uses the shoes once only **(Photo 5)**. They have also disposable socks that they preferred to use it to reduce infection rate. In my opinion all these measures helps to reduce infection rate. This might increase slightly expenses but it will reduce the rate infection and expenditure in general.

The day was followed by a journey to the amazing Estonian National Museum (7) where we learnt more about the Estonian history and culture. We went afterwards to Tartu old town where we visited many buildings and places especially Tartu University premises including the old medical school building where Professor Martson did his medical training in the past. We had another great dinner in Tartu old town where we experienced more of the tartu food menus.

On the 15th of May we travelled by train in the morning to Tallin and we went directly to the North Estonia Medical Centre (8) which is one of the major trauma centres in Estonia and it is the largest in the country. We started with short introduction from the host surgeons on this big institution and the population it serves as well as on their training. We visited the hospital afterwards with a tour to theatres, accident and Emergency and definitely the restaurant where we had excellent lunch hosted by the hospital. We had a lecture on proximal humeral fractures and how they fix that with Intramedullary nails rather than plates to reduce the comorbidities and the size of the incision and wound. Dr Meelis Sula (9) is an upper limb surgeon in this centre and he performs many of these operations. Few of us went afterwards with him to see how he does this operation on elderly lady sustained proximal humerus fracture and he really made that so easy in

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spite of the nature of the fracture as it was multifrgmentary in Osteoporotic bone.

This trauma centre (8) has amazing main theatres area of 18 well equipped theatres for all the specialties (**Photo 6**). Again the cleanliness was extraordinary for a huge and busy trauma centre. Hospital staff have to wear special uniform at the hospital and the level of organisation in theatre changing room is similar to the one witnessed in Tartu especially the disposable socks which I really found it excellent idea (**Photo 7**). I have noticed that the theatre design is different from theatres in the UK in that they have main corridor with only one door leading into theatre and there are no multiple theatre design with dirty room, anaesthetic room nor scrubbing room. In Estonia, scrubbing place is outside theatre room and can be shared by multiple theatres then you walk to operating room scrubbed then to be gowned and gloved by the nurses. This might save money in hospital design but I am not sure about the infection control risk as there is no study to compare these different designs.

We had 2 more presentations, first was on intraarticular distal radius fractures and how they treat with arthroscopy assisted fixation with other hand trauma cases by Dr Kristo Kask. The second was on cervical spines trauma by Dr Kari Pintsaar.

The day ended with another great dinner in tallin in a very high end restaurant with different meals presented by a very welcoming Estonian Chef.

On the 16th of May, I started my day with early morning run at around 6 am with another fellow from Slovakia. The day started by visiting the East-Tallin Central hospital (10) which is claimed to be the oldest hospital in Estonia, however it is the third largest hospital in Estonia after the previous two hospitals we visited. The day started by couple of presentations one was by Dr Andres Koop which was introduction to the hospital and their services. The spines injury presentation was really useful and it was given by Dr Taavi Toomela. This was followed by a hospital tour and this hospital was not less than the previous two we visited over the last few days. After lunch we had a very exciting interactive session on complex trauma non-union cases moderated by Dr Andrey Smirnov (11) who is the chairman of the Estonian AO trauma faculty. This was very useful and he introduced us to some tricks and tips in treating non-union and periprosthetic infection that are definitely transferable to daily practice **(Photo 8)**

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Following that we went to visit Tallin old town, it was amazing as this small town was full of history and we had excellent guide who was very knowledgeable. The last destination on that day was in F-hoone restaurant (12) in the old industrial area and it used to be a warehouse but they renovate it and made it a very nice restaurant. The food was great and the selections were really delicious.

On the 17th of May, the team in Tallin organised a trip to Lahemaa National park (13) to visit the bogs and experience some culture in doing the popular bog walking / hiking (Photo 9). The area is really great and natural, it was very quite and diverse with untouchable landscapes and natural resorts. This was followed by another cultural experience to visit the Vodka museum to explore that and to have some Vodka tasting. We had a lunch in that area which was in the country side and it was another very successful lunch combined with the Vodka tasting (Photo 10). Throughout the day there was lots of discussions and exchanging information on different Orthopaedic issues and experience not only from the Estonian doctors but also from other European fellows. The day ended with another generous dinner hosted by the Tallin group and was attended by Dr Katre Maasalu in a very posh restaurant in the old town, We had the experience of tasting a wild Deer's meat which is very popular in Estonia due to the large population of wild deers in Estonia.

In this last day we exchanged some speeches and we thanked all of the Estonian doctors who helped in facilitating our fellowship experience and made it really very useful for our entire career. We thanks Dr Maasalu and we gave her a thank you card signed by all fellows.

I learnt a lot from this travelling fellowship and I was trying to look at measures that helps to reduce costs in the NHS, however I found that the Estonian system is well funded and actually they spend too much money to make sure the hospital hygiene in general at top standard and theatre hygiene is over and beyond what you think about. This starts from the way they prepare the patient and ending in the surgeon cloths to reduce infection rate. The Uniform is a good measure needs to be adopted in the UK hospitals and theatres' changing rooms should be equipped with facilities to sterilise scrubbing shoes.

I realised that the training system in the UK is robust and trainees are lucky in being able to operate as many other European systems don't allow their

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trainees to operate but only to assist that was surprising for me. The exposure that the UK trainees have to different procedures and operations and the length of training make them advanced in their training compared to other European countries.

I found that the Estonian training system is excellent as well, however it is very short compared to the UK training but the trainees they get exposed to a variety of operations and they get exposed to excellent cases. What attracted my attention further is the It system and how everything in Estonian hospitals is connected and you can excess images and medical records for example from any hospital in the region making life easier for surgeons.

I highly recommend this fellowship for all UK trainees and I advice that they should plan this in advance by filling the application and prepare for the interview. I feel I was luck to be part of this fellowship as I learnt a lot and made new friends.

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Photo 1: Dr Massalu in the staff coffee room with the 12 fellows and the 3 Vetnamese PhD students at the Orthopaedic department at Tartu University hospital.



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Photo 2: From Left to Right AnnaHelena, Mazin and Paul. Anna and Paul were both excellent organisers and guides. Anna is a consultant at Tartu University Hospital and Paul is a resident in Tallin.



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Photo 3: Professor Martson at Tartu University hospital in one of the given lectures.

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Photo 4: Group photo close to the golf club with Dr Maasalu, Professor Martson, Professor Li Fellander-Tsai (First on the right), the rest of the fellows and other doctors from Tartu University hospital.



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Photo 5: Tartu University Hospital in a changing room showing the dirty shoes hanged on a stand and the clean shoes on a shelf.

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Photo 6: Theatre Corridor at the North Estonia Medical Centre with a main corridor and 18 theatres. There is a main corridor and each of the shown doors lead an operating theatre.



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Photo 7: Disposable socks with theatre scrubs.



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Photo 8: Dr Smirnov during his lecture with the fellows



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Photo 9: Bog walking with the other fellows and the Tallin team



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Photo 10: Lunch after the Vodka Museum visit with the Tallin Team