



FDR NANO USER'S VOICE



Digital radiography

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Clinical Experience Using Point of Care X-ray System FDR nano

Nuffield Health Newcastle upon Tyne Hospital in the UK

Mrs. Amanda Cumersdale Radiology Manager



Nuffield Health is one of the leading not-for-profit UK healthcare organisations, looking after people for more than 60 years. Today, Nuffield Health run a network of hospitals, medical clinics, fitness and wellbeing clubs and diagnostic units across the UK. They also support businesses in looking after their employees by operating their fitness and wellbeing facilities services.

Nuffield Health's Newcastle upon Tyne Hospital has been providing outstanding private healthcare to people in the North East of UK for over 40 years. The hospital provides the highest standards of clinical care in state-of-the-art facilities, with Consultant-led treatment, and a team of dedicated and experienced nurses.

As the Radiology Manager Amanda Cumersdale has a team of 9 radiographers working across multiple modalities. In this interview, she explained how the FDR nano brought them a new efficient workflow.

What does the Nuffield Health Newcastle upon Tyne Hospital offer?

Areas of specialty include Neurology, Musculo-skeletal, Oncology, orthopedics, male / female health, ophthalmology, cosmetic surgery and weight loss surgery. A wide range of outpatient services and diagnostic scans are also provided.

Requirements for a new Mobile X-ray machine?

The old General X-ray room and CR system had been decommissioned and was in the process of being replaced with FUJIFILM's FDR Visionary Suite (DR X-ray system). Since the CR system was also used for mobile X-ray exams and the existing analogue mobile x-ray unit was failing, it was decided to invest in a mobile DR system as well.

What were the key points in the decision to purchasing the FDR nano?

The existing mobile x-ray unit was a traditional larger and heavier unit and was difficult to operate and manoeuvre in our small X-ray room, and in the lift. When undertaking mobile examinations in the patients rooms we had to open the double hinged door every time to enter the room. When we first saw the FDR nano at the UK Radiology Congress (UKRC) we were impressed with its small size and agility when moving.

With the FDR nano, we are able to operate the unit by one

hand and just open a single door by another hand, without the need to open the double hinged doors. It makes our daily operation easier and improves the workflow efficiency. In addition, FUJIFILM Flat panel detector, FDR DEVO-II, is able to be shared between the Visionary Suite DR room and the FDR nano, bringing an extended workflow for the DR room and a cost benefit to the department because an additional detector is not required for the mobile X-ray system.

How many X-ray examinations are performed in the hospital?

The total number of X-ray examination per month is approximately 400 cases, and increasing since the local NHS hospital began referring patients to our hospital also. On average more than 100 various X-ray examinations are performed with the FDR nano each month.



Flexible use for the FDR nano

The hospital has 27 beds on ward and 3 operating theatres, for which the nano provides mobile x-ray imaging. Additionally as we have a lot of out-patients requiring plain radiographs, we use the nano as a 2nd x-ray room for outpatients clinics in the radiology department. Due to the small size and excellent manoeuvrability of

the FDR nano we can place it in limited spaces such as a CT room or Fluoroscopy X-ray room depending on the situation increasing our imaging resource for the clinics and reducing patient and clinic waiting times.

The FDR nano's advanced Image processing includes Virtual Grid which allows high quality imaging without the need for a traditional grid and at a lower doses.



Hip-joint (82kV, 4mAs) DYN II (+) ,Virtual Grid (+)

How is the image quality?

In the UK, 66.6% of men and 52.7% of women are categorized as either overweight or obese. The Feedback is even for these larger patients the nano produces images of a high quality. Multiple examinations such as spine, shoulder, hip-joint,

knee, ankle and so on have been imaged with good results.

Low dose protocol with FDR nano

The FDR nano uses Virtual grid and FUJIFILM's new image processing DynamicVisualization II(DYN II). This optimizes the image contrast and reduces the noise level maintaining Image quality while enabling dose to be reduced compared to conventional CR and DR systems. With this newer technology we have been able to expand the use of the nano to examinations previously not able to be completed with a mobile x-ray machine because of unacceptable Image quality results.



Fujifilm's new FDR nano is ultra-lightweight and ultra-mobile. Weighing just 90kg and fitted with multi-directional castors, this extremely mobile, fully capable DR X-ray unit can be moved just about anywhere by anyone, enabling fast image acquisition in challenging environments such as OR, ER, ITU and neo-natal. At the same time delivering excellent image quality courtesy of patented imaging technologies Virtual Grid and Dynamic Visualization II.