

## Road to Recovery: The Right Equipment at the Right Time for a Patient Recovering following a Cardiac Arrest

- ↑ **Early mobilisation**
- ↑ **Mobilisation improvements due to timely equipment changes**
- ↑ **Comfort and dignity**

### Introduction

Vanessa\* (age 39) suffered a cardiac arrest in Accident and Emergency and was subsequently admitted to the Coronary Care Unit (CCU). She weighed 130kg and had the following comorbidities/past medical history:

- **Type 2 diabetes**
- **Bilateral leg lymphoedema**
- **COVID-19 infection three months prior to hospital admission**

Prior to hospital admission Vanessa was fully independent and mobile.

*\*Vanessa is not the patient's real name*



### Clinical Challenges

Vanessa was initially placed on a standard width intensive care bed and alternating therapy surface in CCU, but they were too narrow to allow the staff to turn and reposition her optimally. She was very unwell initially and unable to reposition herself. In-bed mobilisation was needed and, when fit enough, early mobilisation out of bed to limit deconditioning as much as possible.

Vanessa's skin was intact, but it was at risk of damage due to immobility.

Vanessa needed to be turned and moved in a way that was safe for her, but which also minimised the risk of manual handling injuries to staff. This was problematic on the bed she was nursed on initially.

### Patient objectives

- **Stabilise condition**
- **Safe in-bed, then out of bed mobilisation as soon as possible**
- **Comfort and pain management through reduced hands-on interventions**

## Introduction of Medstrom's Bariatric Equipment Package

### CCU

On the same day as Vanessa was admitted to CCU, the staff asked Medstrom to assess Vanessa so a more suitable equipment package could be provided for her. Medstrom's Clinical Advisor carried out the assessment on the same day and Bari10A bed with a TurnCair 1000 surface was delivered.

**TurnCair 1000 Low Air Loss Surface:** This provides a high specification of support surface for pressure redistribution, plus a TurnAssist feature that enables safe and dignified handling of patients. It allowed safe turning of Vanessa for personal care and pressure redistribution, whilst greatly reducing hands-on manoeuvring required, which helped to reduce pain and increase comfort for her. It also reduced moving and handling risks for staff.

The low air loss feature helped to keep Vanessa's skin drier and cooler, to help protect her skin and increase comfort.



**Bari10A Bed:** The Bari10A platform sections widen individually, giving a maximum platform width of 122cm (compared to approximately 90cm for a standard hospital bed). This provides extra space for the patient, but also means caregivers can shorten a section if they want to get closer to the patient to deliver care. This, along with the bed's top height of 86cm, makes caring for the patient safer and easier, reducing injury risks. A one-button cardiac chair enabled Vanessa to sit up, offering both physical and psychological benefits. The electric controls allowed frequent positional changes for in-bed mobilisation.

### Step Down

Vanessa stayed in CCU for a total of six days. Her condition had improved, and it was agreed that preparations should be made for when she started to become more mobile. Her bed and surface were changed to give increased flexibility for mobilisation in preparation for discharge from CCU.

**MMO 8000 Bed:** This bed has a platform width of 110cm for safe and comfortable movement.

The bed's ultra-low height of 21cm allows 96% of the UK female population to mobilise safely.<sup>1</sup> Once Vanessa was well enough to get out of bed the customisable, programmable optimum egress height was set at her popliteal height<sup>1</sup> for safe bed egress. This eliminates guesswork and allows safer mobilisation, reducing the risk of falls. The electric height adjustment was also used to help her stand, supporting her lower body, as her leg muscles were weakened due to bedrest.



**P.R.O. Matt Plus Extra-Wide Surface:** This surface can be used in non-powered mode, or powered mode with the addition of an air supply unit. It was decided to use it in powered mode for Vanessa because she was still bedbound, increasing the vulnerability of her skin. In non-powered mode, it is able to achieve a pressure profile similar to that of a dynamic air mattress. However, if the patient requires a 'step up', a control unit can be added, converting the system to powered therapy and uniquely offering both alternating and continuous low pressure.

A week after Vanessa was discharged from CCU, she was able to sit on the edge of the bed with the assistance of three therapists but wasn't able to stand. Vanessa agreed with the team to start using a mobile hoist to transfer into a chair.

**Calibre Mobile Bariatric Hoist:** This hoist is specifically designed to meet the needs of plus-size patient care. It has a safe working load of 385kg (60 stone), electric height and leg adjustments and built-in features to make manoeuvrability easier, reducing manual handling risks for staff.

**Bariatric Static Chair:** This allowed Vanessa to sit out of bed, offering physical and psychological benefits. Vanessa's sitting balance was good, so the static chair met her needs.

The hoist was successfully used to transfer Vanessa between her bed and chair for several days, but she then became unwell. While she was undergoing investigations for this, the decision was made to keep her in bed. She remained in bed for 10 days, then recommenced transferring to her chair using the hoist.

Vanessa continued to work on her mobility which started to improve. Approximately four weeks after recommencing the use of the hoist and static chair, she was able to stand and use a standing aid to transfer. However, the most difficult part for her was getting to the edge of the bed; twisting and sitting whilst turning was very challenging for her.

### Equipment Change

To make the sit-to-stand movement easier for Vanessa, she was transferred to a new bed and surface.

**MMO 6000 Bed and Medstrom Aria 6000 Surface:** Using one button, the MMO 6000 can be put in a full chair position, allowing the patient to move from a sitting to a standing position safely and easily from the front of the bed. This eliminated the turning that Vanessa was finding difficult from the previous bed.

The Medstrom Aria surface has more stability deliberately built into the immersive cells to encourage and aid patient independence, whilst at the same time delivering therapeutic benefits to prevent pressure ulcers.

Vanessa found standing and transferring from this bed and surface a lot easier. It enabled her to spend more time out of bed and to improve her mobility.

Approximately four weeks after Vanessa transferred onto the new bed and surface, she was discharged from hospital to a rehabilitation unit to continue her recovery. By the time she was discharged her ability to stand for longer periods of time had improved and she could walk a few steps. She was in hospital for a total of 79 days.

Due to the severity of Vanessa's condition on admission, her recovery wasn't straightforward. However, objectives for her were met over the course of her hospital stay; she was able, when well enough, to sit out of bed, firstly using a hoist and then a stand aid. The equipment helped reduce hands-on interventions to provide more comfort and dignity for her and reduce risks to staff. Her skin remained intact throughout.



**Safe mobilisation**



**Comfort and dignity**



**Continuing recovery**

## Summary

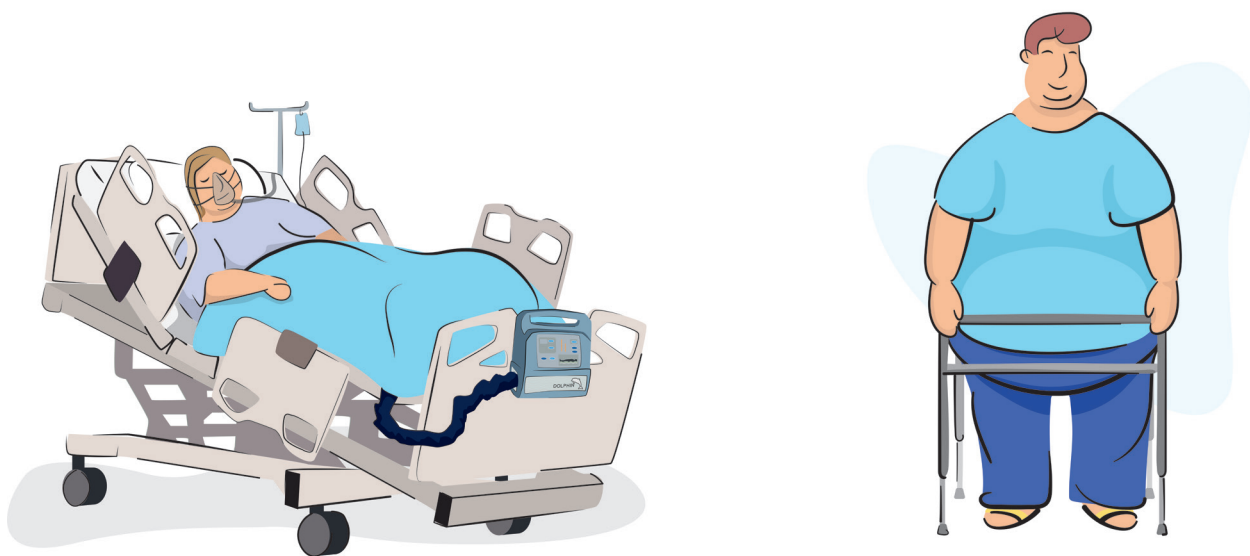
The use of the right equipment at the right time played a critical part in Vanessa's recovery. Initially, when she was very unwell, the Bari10A bed and TurnCair 1000 surface allowed staff to care for her safely, without excessive "hands-on" interventions which Vanessa didn't like, and which increased manual handling risks for staff. It also allowed frequent positional changes and in-bed mobilisation.

Vanessa was stepped down to the MMO 8000 bed when her condition improved, in preparation for early mobilisation out of bed. Initially, when she was unable to sit to stand, the Calibre hoist was used. Sitting in a chair provided physical and psychological benefits, both of which helped her recovery.

Once Vanessa could stand, her bed was changed to make the move easier for her, allowing her to spend more time out of bed and increase her mobility further.

### References

1. Martindale D (2021). Calculating bed height for hospital patients using popliteal measurement. Nursing Times [online]; 117: 10.



**To discover more about Medstrom's range of solutions for dignified plus-size patient care and enhanced support for caregivers, contact Medstrom's Bariatric Product Specialists 24/7/365 on:**

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