

## **New mobile operating table by DOCKX are ideal for surgeons, patients and nursing staff**

**Vitalys has developed an adjusted operating table in collaboration with DOCKX Medical bv for obese patients. Vitalys recently purchased five of these tables. They are the first clinic in the Netherlands to do so. The iMoc Baroc benefits patients, surgeons and other surgical staff. Amongst other things, the table allows for better positioning, is easier to move and provides more freedom of movement around the table for surgical staff.**

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### **“It's great that they don't have to lift me”**

**Renate Jolink, nurse at Vitalys  
Jan Jansen, a patient of Vitalys who was operated on in May 2016**

The operating table can carry patients who weigh up to 350 kilos and can be adjusted so that the patient is either lying or sitting down. The operating tables can be found in the Bariatric ward at the Rijnstate hospital in Arnhem. Patients are admitted to this ward for bariatric surgery.

### **Easy transition to the operation room**

“The patient gets into the chair themselves before going in for the surgery. A nurse can then wheel the patient to the operating room without any help from their colleagues”, explains nurse Renate Jolink. “We used to call in patient transport to help and they used a bed mover. The chairs are easy to use. You can even push it using just two fingers. This means I can also collect a patient from the OR by myself. This is quicker and more efficient as you are less reliant on other people. The electric fifth wheel on the bed means that moving the bed is not a strain for nursing staff.

Patients also don't need to change beds once they reach the operating room. They can stay where they are. This means that preparations for the operations, like inserting a drip or administering anaesthesia are less time consuming.

### **Reduced risk of thrombosis**

“Another benefit is that patients can spend time in recovery in a better position following their surgery. This reduces the risk of thrombosis and allows patients to breathe more easily. It's a big change to lying flat in a recovery room for two hours. Patients are activated quicker. It took some getting used to and patients had to adjust too. We inform patients beforehand so that they know what to expect.”, explains Renate.



*Renate Jolink and Jan Jansen  
at the operation table*

The chair is cleaned in a special area on the ward once patients are back in their own beds. Vitalys owns five chairs and there are six operations per day. It's a fine-tuned operation.

Patient Jan Jansen, from Arnhem, who received a gastric sleeve is satisfied with the OR chair. "It's great that the people working in the OR don't have to lift me into another bed after the operation. Changing beds in the ward wasn't a problem and the chair is pretty comfortable". Renate chimes in: "Transfers can be unpleasant for obese patients. Their weight means that numerous members of staff need to get involved. Patients sometimes feel embarrassed". Vitalys has adjusted numerous other items of furniture and bathroom facilities for bariatric patients in addition to the special operating tables. We want our patients to feel comfortable and at ease.

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## Bringing something new to the table

### By Frits Berends, a surgeon at Vitalys

Sometimes something crosses your path which can dramatically improve your life without you even realizing something had been missing. They are items which either solve existing problems, which make a process easier or which resolve something frustrating. Some apps on your smartphone can do that, some kitchen appliances do that and you may even own specialized gardening equipment to help make that frustrating job that bit easier.

#### Sore backs

The operating table is the focus of an operating room. No operations will take place without a table. I have spent 20 years working with operating tables and I've had to assume a variety of positions while performing my duties. Patients would climb on the table and were lifted off and I often asked myself if there was room for improvement. However, since the introduction of the new iMoc Baroc table I started to realize how illogical it was to lift the 1,200 patients we treat each year for serious weight issues from an operating table to a bed. I don't even want starting thinking about how many kilos the OR staff have had to move over the past few years; let alone the awkward manoeuvring which took place using the XL beds which are employed for this kind of patient.



*Bariatric surgeon Frits Berends*

#### The frog position

A bariatric surgeon usually works in the 'French position'. This means he is located between the patient's legs. The space between a patient's legs can, especially a slightly larger one, can be increased by positioning them like a frog's: bend the knees and spread them from the hips. Traditional tables nearly always make this very hard to do. Furthermore, heavy tables usually have an even heavier foot so that a table holding a patient who may weigh over 300 kg will not tip over. This foot often sticks out under the table which means that a surgeon has to bend over to be able to access the surgical site. Naturally, a little bit of exercise never hurt anyone. Nevertheless, my knees and back are grateful that we now use a table which means I can now perform procedures in a relaxed and comfortable position.

Things have also changed for anaesthetists. As there are no more transfers from a bed to the operating table, ECG stickers, a blood pressure cuffs and TOF sensors can be placed during the prep stage which saves transfer time and prevents other people having to wait. Patients can be extubated following surgery in a sitting position. This is better for their breathing. The auxiliary power supply under the chair means it is easy to transport it from the operating room to the recovery room: this is another ergonomic benefit.

**"The iMoc Baroc operating table offers numerous ergonomic and logistical benefits when it comes to working with patients who are overweight. I couldn't do without it. "**

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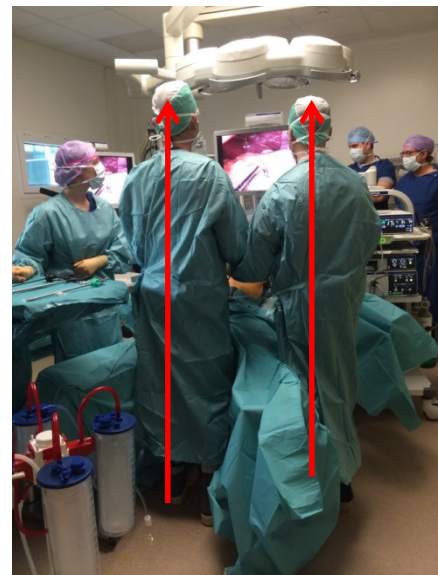
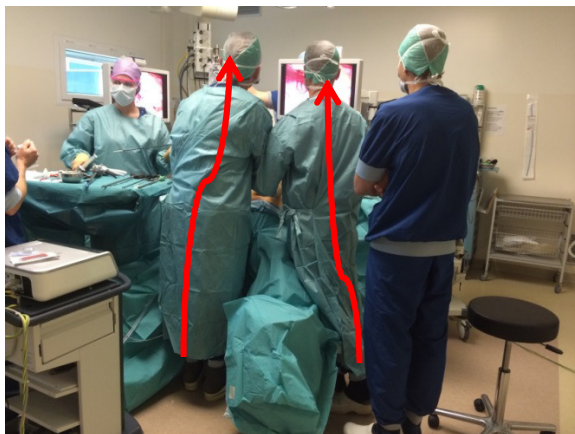
## Research, numbers and statistics

**By Edo Aarts, researcher at Vitalys/Rijnstate**

The development of the iMoc Baroc took six years. Lots of prototypes bit the dust before this lovely piece of technology was achieved. A scientific basis is a must for this innovative operating table. The Vitalys and Rijnstate research department, who focus on scientific research in the field of bariatrics, played a major role in its development.

### Ergonomics

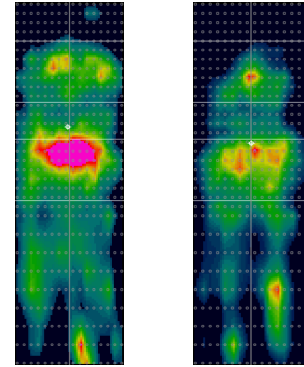
Improved ergonomics for both the patient and the surgical team were high on our list of priorities when developing the table. Like Dr. Barends said: ergonomics are very important in a centre which focuses on people suffering from morbid obesity. We need to make sure that our surgical team is protected and that they don't suffer any back or other physical issues. Transferring patients and their posture while doing so during laparoscopic surgery is something that doesn't receive enough attention. Mobile surgery, where a patient is able to transfer themselves on their own is an important step and an improvement. Furthermore, the foot has been moved to the head of the seat which means there is room to position yourself at the foot of the iMoc Baroc. A double blind experiment at the Rijnstate hospital shows significant improvements when it comes to posture when using the iMoc Baroc. (**Figure 1**)



**Figure 1:** Posture difference between the ALPHAMAXX™ (left) and the iMoc Baroc (right)

## Safety

Patients with morbid obesity have different weight distribution to people who are slim. This means that pressure point distribution on operating tables differs too. Current operating tables are not as suited to heavier patients due to the use of memory foam. This means that pressure points are not properly dispersed. This can be reduced by positioning patients in a more upright position. Pressure tests on patients who were positioned on the iMoc Baroc show that this dispersion can be dramatically improved. This means, in theory, that fewer pressure points are created and that the risk of thrombosis is reduced. This can be seen in **Figure 2**.



**Figure 2:** (Accumulative) Pressure readings at 15° for the ALPHAMAXX™ (left) and the iMoc Baroc (right)

## Efficiency

The amount of requests for surgery for patients suffering from morbid obesity is huge and it is important that time available for surgery is used as efficiently as possible. Time spent in surgery is extremely precious. Decreasing the time necessary for positioning, transfers and switching patients can result in the creation of a lot of extra time. The iMoc Baroc eliminates transfers, the patient is automatically positioned and the time necessary for transfers can be dramatically reduced due to the introduction of mobile surgery. A prospective study indicates that the average surgery time is decreased by up to 10 minutes per operation which results in the option to perform one extra operation per day at Vitalys.

Duration between	ERABS+ ALPHAMAXX™	ERABS+ Baroc™	P-value
Holding – arrival OR (min)	39 ±20	38 ±18	NS
Total time at OR (min)	<b>82 ±21</b>	<b>72 ±16</b>	<b>&lt;0.001</b>
Arrival OR – Induction (min)	5 ±2	4 ±2	NS
Start induction – End induction (min)	7 ±3	5 ±3	NS
End induction – Start surgeon (min)	4 ±6	4 ±6	NS
Start surgery – End surgery (min)	56 ±19	54 ±32	NS
End surgery – Leaving OR (min)	<b>7 ±8</b>	<b>3 ±1</b>	<b>&lt;0.001</b>
Leaving OR – To recovery (min)	3 ±2	2 ±2	NS
Arrival Recovery – To ward (min)	95 ±33	83 ±42	NS
Time to next patient on OR (min)	<b>16 ±22, n=56</b>	<b>8 ±2, n=10</b>	<b>&lt;0.001</b>

**Table 1:** Comparison between the ALPHAMAXX™ and the iMoc Baroc.

## Want to see the iMoc Baroc table in action

Are you interested in seeing this innovative operating table in action and would you like to discover the practical advantages in person? Feel free to come and watch one of surgeons in action. Please contact:

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