Olberon Vacuderm™

Optimising venous access

Single patient tourniquet for difficult to reach veins, with unique suction and pump mechanism to aid further filling of the veins and increase the success rate of first attempt in venous access

Olberon

BENEFITS

Olberon Vacuderm™

Optimising venous access

The Vacuderm, single patient tourniquet for difficult to reach veins has been designed as part of a toolkit to aid intravenous needle insertion for cannulation, drug delivery and blood collection.

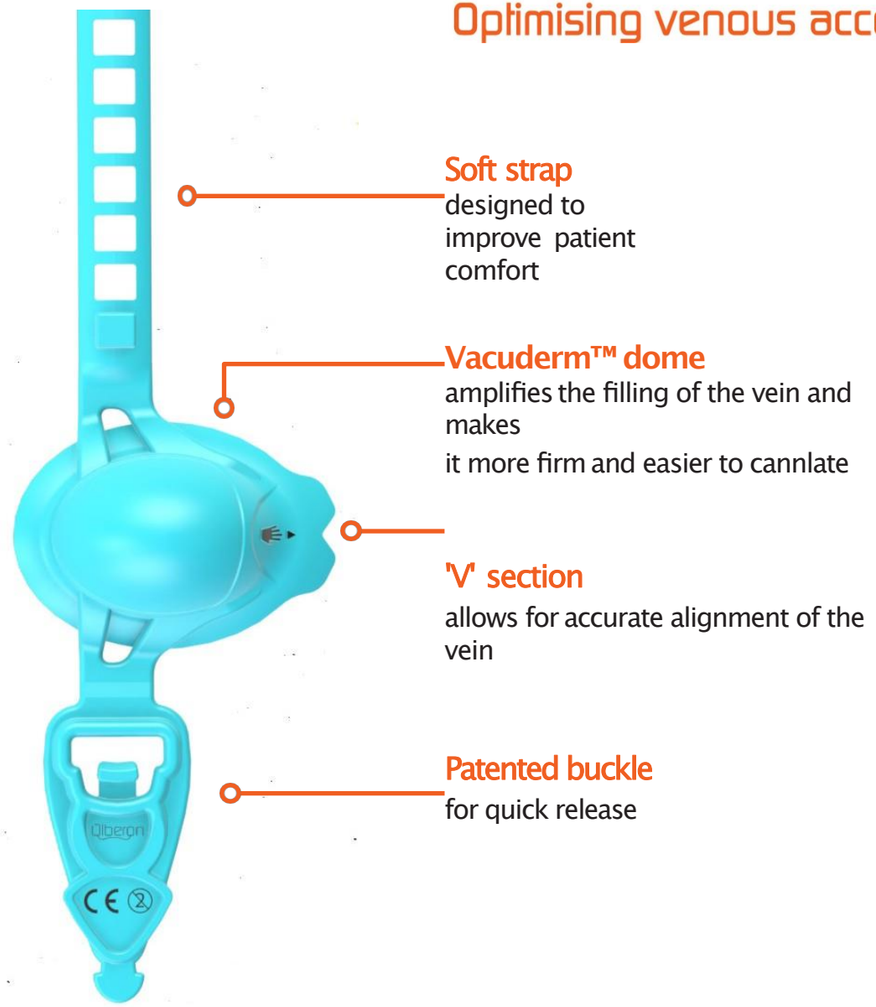
- Better experience for patients with poor vein access
- Less stress and anxiety for patients and practitioners
- Designed to reduce wastage, cost and time for hospitals
- Designed to improve the success rate of first attempt venous access and reduce failed cannulations
- Designed to reduce infection with less attempts to find veins
- Easy-to-use, does not require modifications to existing practices

BENEFITS

- The Vacuderm is soft and comfortable for the patient
- The procedure makes it easier to detect veins, even in difficult patients
- A curved ladder-effect strap to reduce pinching
- Easy to tighten, grip and with unique release buckle mechanism
- Single-patient use recommended
- The material is recyclable and latex free
- Manufactured in a clean room environment and packed to assist with infection prevention

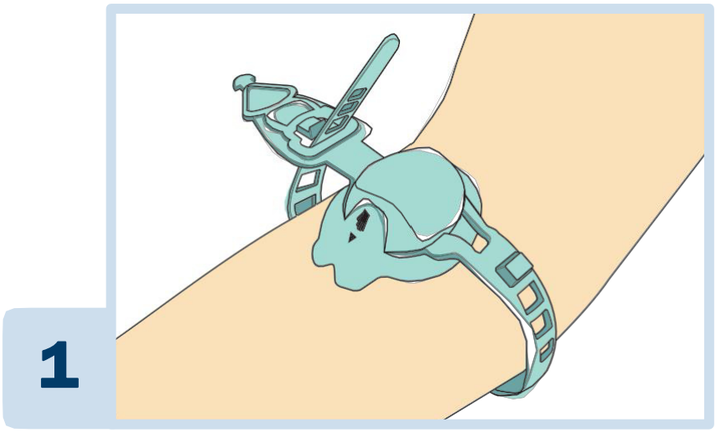
Olberon Vacuderm™

Optimising venous access

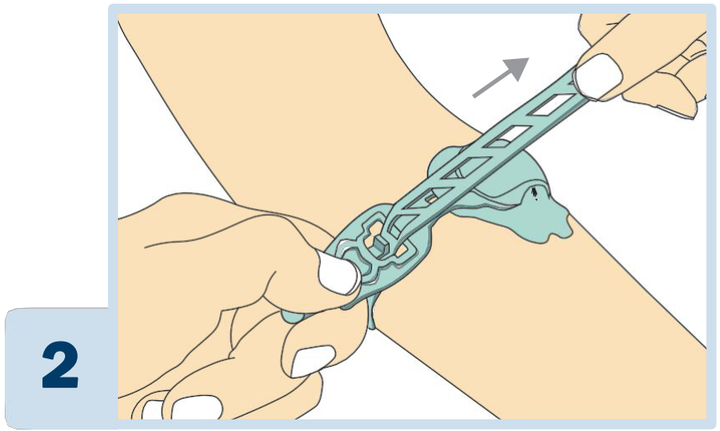


Olberon's Solution

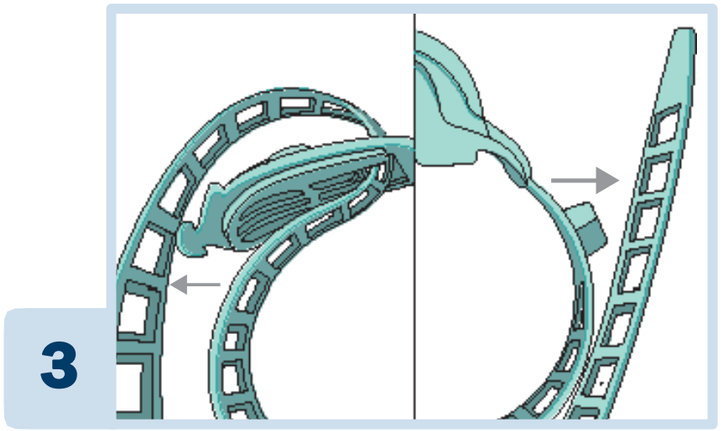
EASIER TARGET - USING VACUUM TO FILL THE VEIN



Ensure the hand/arrow V section is pointing towards the patient's hand to allow for accurate alignment to the vein.



Using two hands, thread the strap through the buckle and stretch, ensuring ample tightening to latch onto the buckle and give a good tourniquet effect.

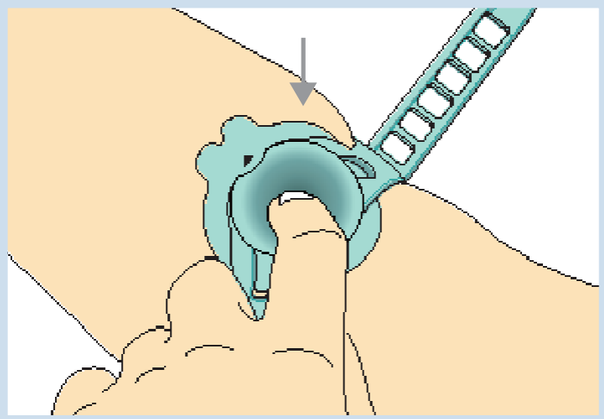


The strap can be hooked back on itself to give more secure placement.

For a video presentation please visit https://www.youtube.com/watch?v=yX9kzxc73R8

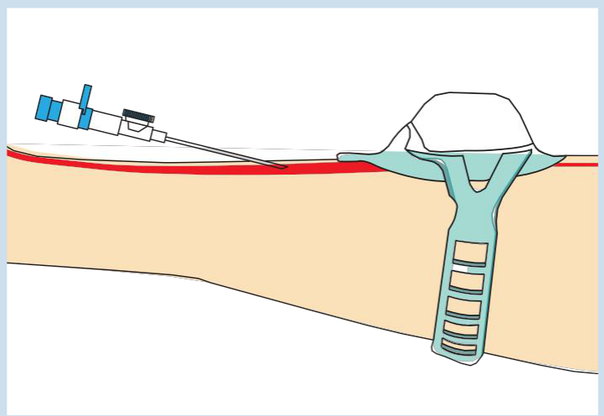
Olberon's Solution

EASIER TARGET - USING VACUUM TO FILL THE VEIN



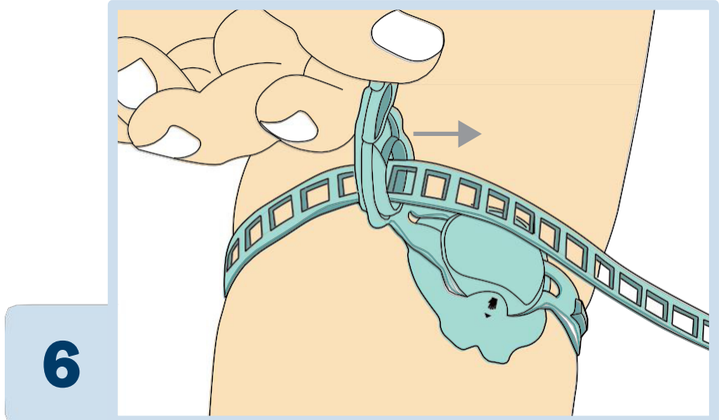
4

After checking you have achieved optimal tightening, pump at least 10 to 15 times on the back part of the dome to optimise vein distension, more if required.



5

Insert the cannula as per standard practice.



6

Release is single handed by lifting the buckle.

To complete the cannulation procedure, use a dressing to protect the IV insertion site as per standard practice.

For a video presentation please visit https://www.youtube.com/watch?v=yX9kzxc73R8

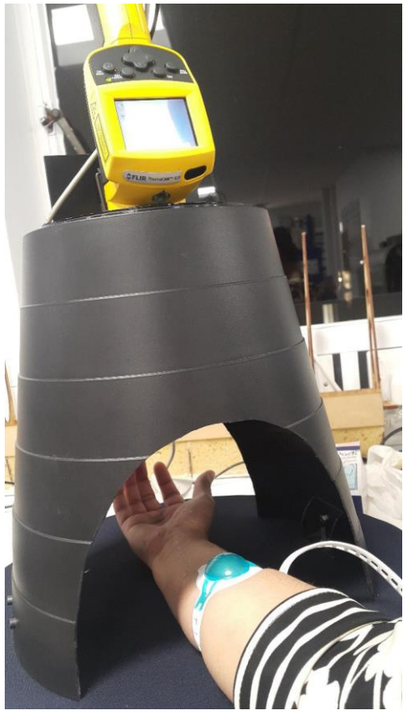
Further research evidence

EXPERIMENTAL SET UP WITH INFRARED IMAGING

The Vacuderm is firstly placed on the patient's arm in the correct orientation. The investigators then used infrared imaging to test the visibility veins using the Vacuderm. The images below show the FLIR E25 thermal camera capturing infrared imaging of a subject's veins after cold stimulation (Emphasises the visibility of warmer veins), applying the Vacuderm tourniquet and placing it under the FLIR E25 camera.

Without Vacuderm

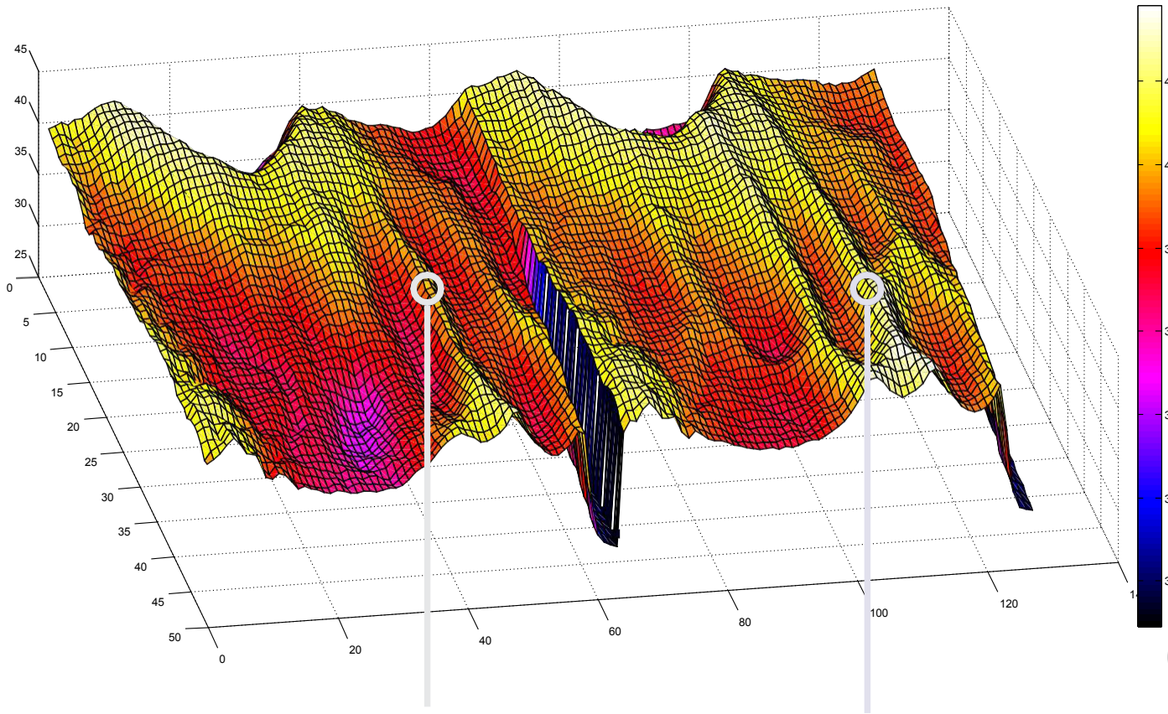
With Vacuderm



Further research evidence

RESULTS: RELATIVE INFRARED IMAGES

The temperature map below indicates the results of the investigation. Each peak on the temperature map represents the temperature of the veins. As shown, without the Vacuderm the lower temperature red peaks indicates lower temperature in the vein, whereas with the Vacuderm being pumped the yellow peaks indicate a higher temperature in the veins because more blood has been drawn into the vein by pumping. This also results in more visible veins by IR imaging.



Higher temperature

Lower temperature

(Temperature of bodily tissue)

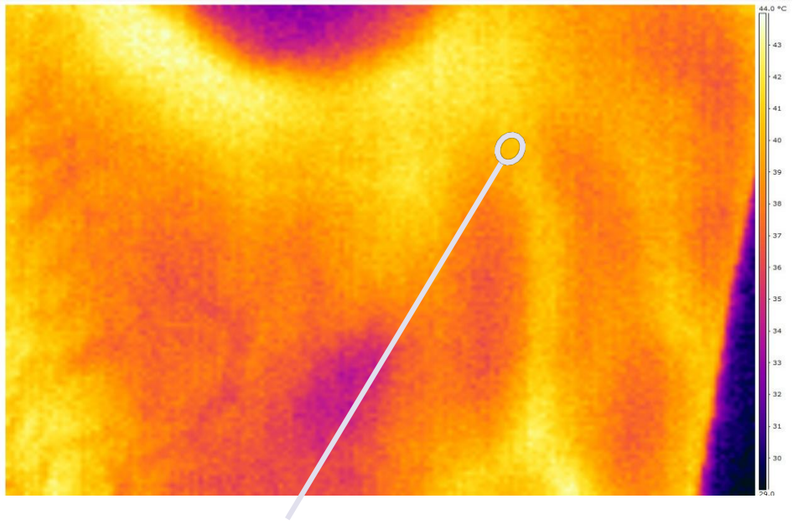
Without pumping

<u>Same area</u> with pumping
(Significantly higher temperatures)

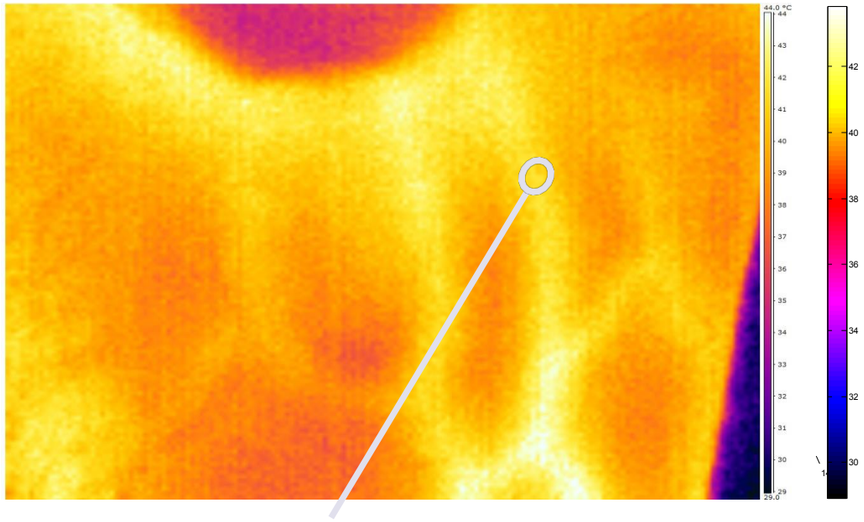
Further research evidence

RESULTS: RELATIVE INFRARED IMAGES

The images below show the Infrared pictures of vein visibility using IR imaging before and after pumping with the Vacuderm™ tourniquet, following cold stimulation to decrease the temperature of the adjacent tissues. After applying and pumping the Vacuderm™ tourniquet an enhancement can be clearly seen of the visualization of the veins, because pumping will pull more blood into the veins.In a cross over trial conducted at Nottingham Trent University involving 20 subject we showed that with pumping there is increase of 30% in vein diameter and 60% in cross sectional area. Results submitted for publication inBritish Journal of Nursing in Feb 2108.



Without pumping



Same area with pumping (Significantly higher temperatures)

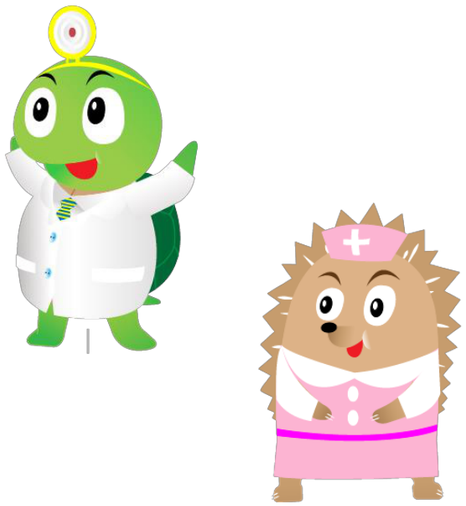
Higher temperature

Lower temperature

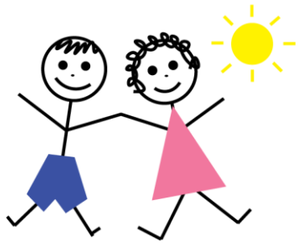
(Temperature of bodily tissue)

Olberon Vacuderm™

Optimising venous access



...for kids



Single patient children's tourniquet, designed to distract the child during cannulation procedures

BENEFITS

Olberon Vacuderm™

Optimising venous access

...for kids

The Vacuderm for Kids, single patient children's tourniquet has been designed for the child to 'assist' the procedure and pump the dome.

- It is part of a toolkit to aid intravenous needle insertion for cannulation, drug delivery and blood collection.
- Has been developed based on practitioner experience on cannulation procedures performed on children
- Cannulating a child is problematic, often requiring several medical staff and sometimes multiple attempts.
- Better experience for children with poor vein access
- Less stress and anxiety for the child, parents and the practitioners
- Designed to reduce wastage, cost and time for hospitals
- Available as a turtle or hedgehog design dome

BENEFITS

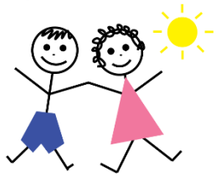
- Designed to improve the success rate of first attempt venous access and reduce failed cannulations
- Designed to reduce infection with less attempts to find veins
- Easy-to-use, does not require modifications to existing practices
- The Vacuderm is soft and comfortable for the child
- A curved ladder-effect strap to reduce pinching
- Easy to tighten, grip and with unique release buckle mechanism
- Single-patient use recommended
- The material is recyclable and latex free
- Manufactured in a clean room environment and packed to assist with infection prevention
- Free play-card for the child with every tourniquet

Olberon Vacuderm™

Optimising venous access

Soft strap
designed to improve patient comfort

...for kids



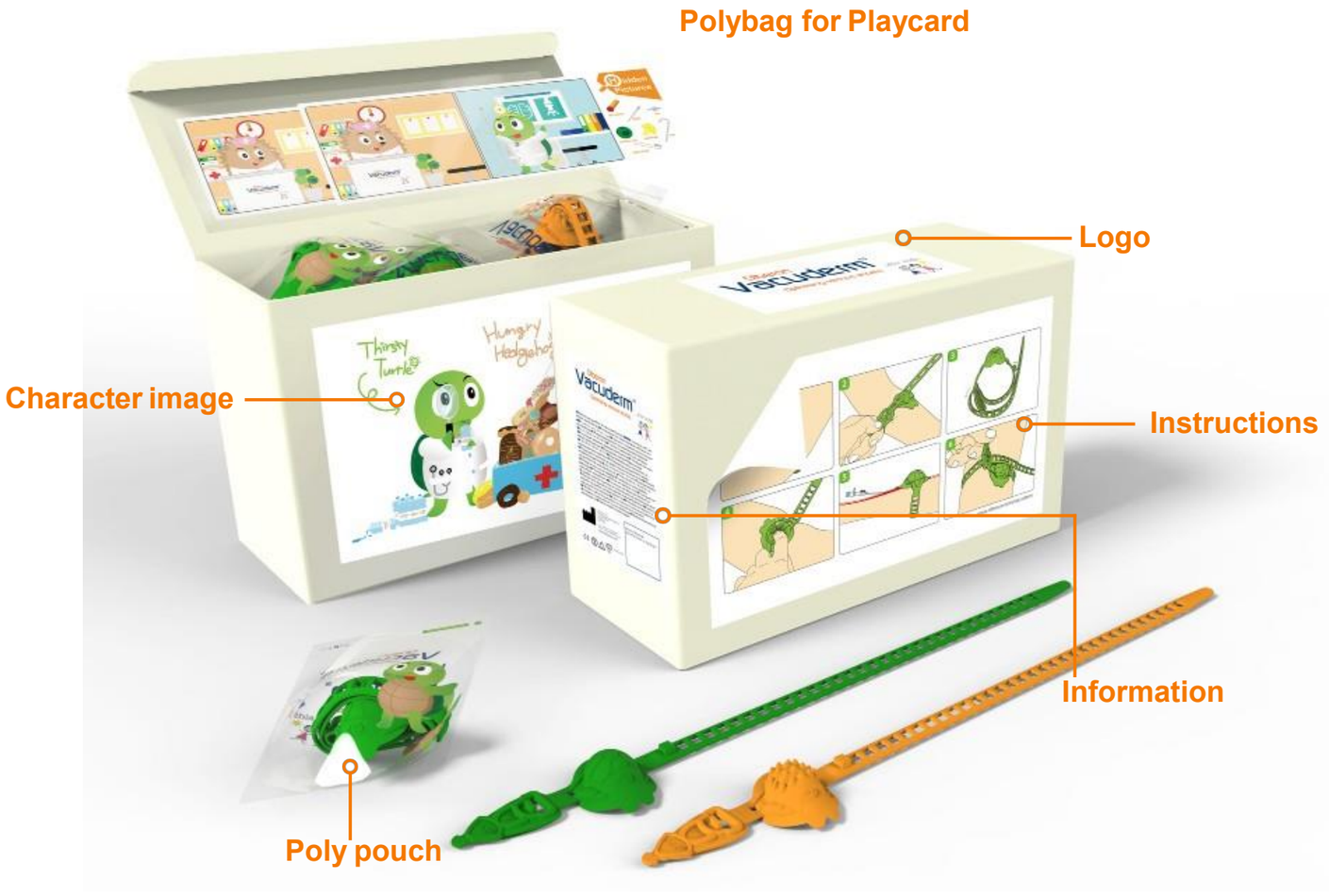
Vacuderm™ dome
amplifies the filling of the vein and makes it more tense and easier to cannulate

'V' section
allows for accurate alignment of the vein

Child–friendly design
relaxes children during procedure

Patented buckle
for quick release

Packaging
CONCEPT IMAGE



Distraction Packaging

Distraction therapy is a way of helping a child cope with a painful or difficult procedure.

- It encourages the child to choose his/her own product and divert their attention from fear of injection so that the child participates positively in the cannulation process.

- Individual packaging for preventing infection.

- It takes the child's mind off the procedure by concentrating on something else that is happening.

Packaging

PRODUCT AND PACKAGING

Logo
printed on
top

Child–friendly image
printed on front side

Contact

Pat Coakley Medical

Pat Coakley Medical Ltd.
Units E3 E4 Network Enterprise Park
Kilcoole A63 H244
Co Wicklow IRELAND

+353 12018070
sales@patcoakleymedical.ie

MEDICAL INNOVATION
Olberon