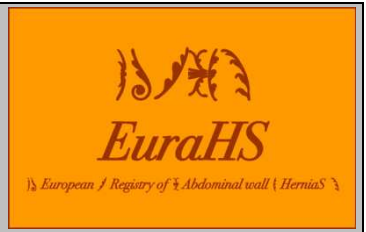


# EuraHS II CRF 2

## Open Abdomen Route

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_



**Name of Patient (not in EuraHS):** \_\_\_\_\_ **EuraHS Case –ID:** \_\_\_\_\_

### 5 General procedures preceding

**Day of hospital admission** \_\_\_\_/\_\_\_\_/\_\_\_\_

- Previous surgery**
- Exploration for blunt abdominal trauma
  - Exploration for penetrating abdominal trauma
  - Exploration after blast injury
  - Bowel resection with anastomosis
  - Bowel resection without anastomosis
  - Pancreatic necrosectomy
  - Abdominal packing
  - Splenectomy
  - Other type; please specify \_\_\_\_\_

**Indication for the previous surgery**       Elective       Emergency

**Type of previous laparotomy**       Midline incision       Transverse incision  
 Combined midline and transverse incision

### 6 Management of the open abdomen

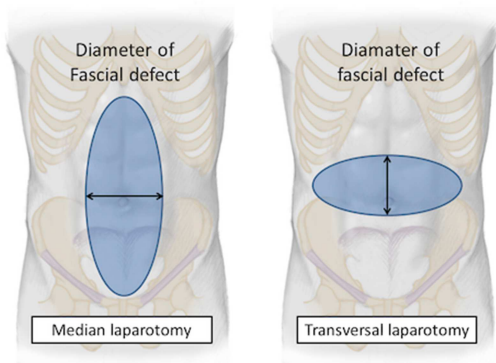
**Day of admission to intensive care unit** \_\_\_\_/\_\_\_\_/\_\_\_\_

**Indication for open abdomen management**

- Trauma**      Specify organs affected?
  - Large intestine       Small intestine
  - Stomach       Liver / gallbladder
  - Spleen       Diaphragm
  - Other organ; please specify \_\_\_\_\_
- Peritonitis**      Cause of peritonitis?
  - Hollow organ perforation
  - Anastomotic insufficiency
  - Pancreatitis
  - Other; please specify \_\_\_\_\_
- Abdominal compartment syndrome**
- Burst abdomen**
- Other** ; please specify \_\_\_\_\_

**Mannheim Peritonitis Index (MPI) on the first day of open abdomen management \_\_\_\_\_**

**First day of open abdomen management \_\_\_\_/\_\_\_\_/\_\_\_\_**



**Size of open abdomen on the first day of**

**open abdomen management: \_\_\_\_\_ cm**

**Was the open abdomen created during the initial operation of this hospital stay?**  Yes  No

If **NO**, indicate the number of previous operations

1  2  3  4

6 to 10  11 to 15  >15

**Did the patient present with sepsis on the first day of open abdomen management?**  Yes  No

**ISS score on the first day of open abdomen management: \_\_\_\_\_**

Injury Severity Score: Baker et al. (1974) The injury severity score: a method for describing patients with multiple injuries and evaluating emergency care. J Trauma 14:187-196

**APACHE II score on the first day of open abdomen management: \_\_\_\_\_**

APACHE II Score: Acute Physiology and Chronic Health Evaluation

Knaus et al. (1985) APACHE II: a severity of disease classification system. Crit Care Med 13:818-29. Online calculator:

**Björck classification on the first day of open abdomen management:**

Björck et al. (2009) Classification - Important Step to Improve Management of Patients with an Open Abdomen. World J Surg 33:1154–1157 Grade 1A (clean OA without adherence between bowel and abdominal wall or fixity of the abdominal wall (lateralization); Grade 1B (contaminated OA without adherence/fixity); Grade 2A (clean OA developing adherence/fixity); Grade 2B (contaminated OA developing adherence/fixity); Grade 3 (OA complicated by fistula formation); Grade 4 (frozen OA with adherent/fixed bowel, unable to close surgically, with or without fistula)

Grade 1B  Grade 2A  Grade 2B  Grade 3  Grade 4

**Type of open abdomen management**

**Surgical towels** placed over the viscera (no application of negative pressure)

**Surgical towels** placed over the viscera, application of negative pressure (no visceral protective layer)

**First layer:** visceral protective layer placed over the viscera, second layer: surgical towels (no application of negative pressure)

**First layer:** visceral protective layer placed over the viscera, second layer: surgical towels, application of negative pressure

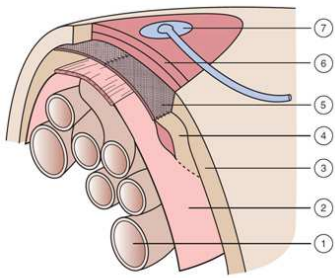
**First layer:** visceral protective layer placed over the viscera, second layer: hook and loop sheets (Wittmann patch) (no application of negative pressure)

**First layer:** visceral protective layer placed over the viscera, second layer: hook and loop sheets (Wittmann patch) (application of negative pressure or **VAC system**)

**Vicryl mesh (inlay)** and surgical towels (no application of negative pressure)

**Vicryl mesh (inlay)** and surgical towels, application of negative pressure

**Vicryl mesh (inlay)** and **VAC system**



Acosta S et al. (2011) *BJS* 98:735-743.  
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- VAC system** with visceral protective layer and fascial suture
- VAC system** with visceral protective layer and polypropylene mesh (inlay) (Acosta et al.)
- Koblenz algorithm: **VAC system** placed over the viscera plus Vicryl mesh (at the fascial level) plus subcutaneous VAC system
- Commercial **VAC system**

**Other**, please specify \_\_\_\_\_

**Specific type of OA management (Part I): What material is in direct contact with the viscera?**

- Surgical towels placed directly over the viscera
- Plastic sheet placed over the viscera (second layer can consist of surgical towels or hook and loop sheets)
- Specific type of visceral protection (e.g. Suprasorb)
- Vicryl mesh placed directly over the viscera
- Biological mesh placed directly over the viscera
- Other type of dressing or protection, please specify \_\_\_\_\_

**Specific type of OA management (Part II): How do you treat the fascia?**

- No fascial suture
- Vicryl mesh (inlay) for fascial approximation (the mesh is slit for abdominal revision and closed again with sutures)
- Polypropylene mesh (inlay) for fascial approximation (e.g. according to Acosta) (the mesh is slit for abdominal revision and closed again with sutures)
- Hook and loop sheets (e.g. Wittmann patch)
- Pulley sutures
- Sutures for fascial approximation at the cranial and/or the caudal end of the wound
- Other treatment of the fascia, please specify \_\_\_\_\_

**Specific type of OA management (Part III): Do you apply negative pressure?**

- No suction drainage
- Barker's vacuum pack technique
- Vacuum system with pump
- Other type of peritoneal drainage / VAC, please specify \_\_\_\_\_

**Specify type of OA management (Part IV): How do you treat the skin?**

- Skin left open until abdominal wall closure
- Step-by-step closure of the skin
- Primary closure of the skin and reopening of the skin for revisions
- Other treatment of skin, please specify \_\_\_\_\_

## Manufacturer of VAC system

KCI       Smith & Nephew       Lohmann & Rauscher       Hartmann

Other, please specify \_\_\_\_\_

**Type of VAC therapy**       Continuous       Intermittent

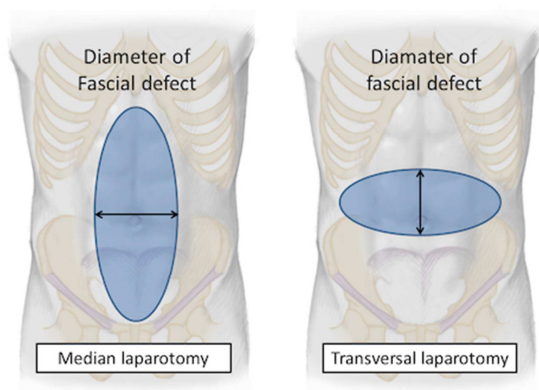
**Intensity of VAC in mmHg**       25       50       75       100       125       Other VAC intensity

**Total number of reoperations or VAC dressing changes during open abdomen therapy**

0       1       2       3       4       6 to 10       11 to 15       >15

## 7 Abdominal wall closure

**Day of completion of OA management** \_\_\_\_/\_\_\_\_/\_\_\_\_



**Width of the residual fascial defect on the day of**

**completion of OA management:** \_\_\_\_\_ cm

**Björck classification on the day of completion of open abdomen management**

Grade 1B       Grade 2A       Grade 2B

Grade 3       Grade 4

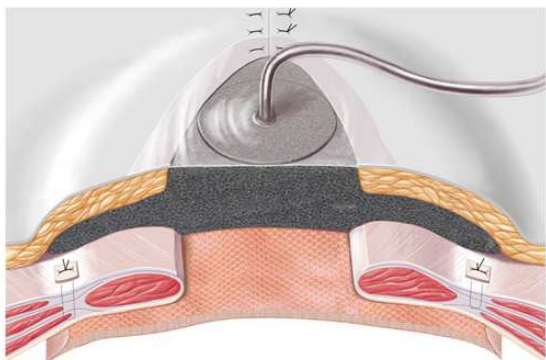
**What is the condition of the abdominal wall after completion of open abdomen management?**

- Step-by-step** abdominal wall closure was initiated before completion of open abdomen management (1).
- Step-by-step** abdominal wall closure was initiated on the day of completion of open abdomen management . (2)
- Definitive one-stage** abdominal wall closure was performed on the day of completion of open abdomen management . (3)
- Other, please specify \_\_\_\_\_

**(1) Type of step-by-step abdominal wall closure initiated before completion of open abdomen management :**

- Step-by-step closure of the linea alba by sutures starting at both ends of the wound (for reapproximation) without mesh
- Step-by-step closure of the linea alba by sutures placed at both ends of the wound (for reapproximation) over Vicryl mesh without vacuum therapy
- Step-by-step closure of the linea alba by sutures placed at both ends of the wound (for reapproximation) over Vicryl mesh with vacuum therapy
- Other, please specify \_\_\_\_\_

**(2) Type of step-by-step abdominal wall closure that was initiated on the day of completion of open abdomen management**



- Placement of sutures with progressive approximation of the fascial edges at both ends of the wound
- Synthetic mesh with skin approximation
- Synthetic mesh with vacuum therapy and skin approximation
- Vicryl mesh and coverage with skin mesh graft at a later date (planned giant ventral hernia)
- Open management of laparostomy wound (planned giant ventral hernia)

Other, please specify \_\_\_\_\_

**(3) Type of definitive abdominal wall closure on the day of completion of open abdomen management**

- Approximation of skin and subcutaneous tissue (no fascial approximation)
- Anatomical closure of fascia and skin
- Mesh placement (retromuscular or sublay technique)
- Mesh placement (abdominal wall replacement / IPOM)
- Closure of the fascia nad subcutaneous vacuum therapy

Other, please specify \_\_\_\_\_

Surgeon: \_\_\_\_\_

Transferred to EuraHS: \_\_\_\_/\_\_\_\_/\_\_\_\_