

PMDA

Medical Safety Information

Pharmaceuticals and Medical Devices Agency



No. 52 December 2017

Precautions When Using an Open Ventricular Drainage Circuit

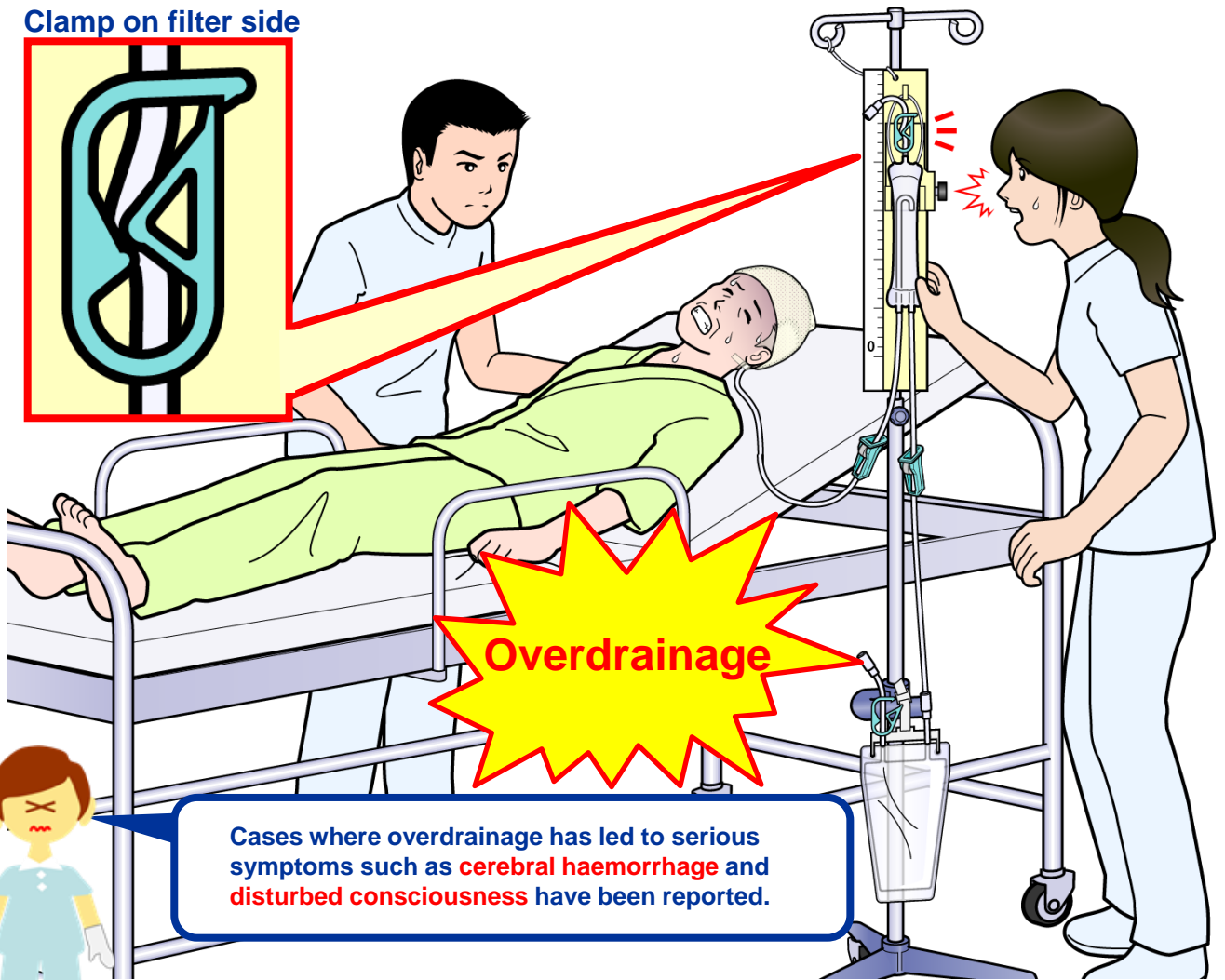
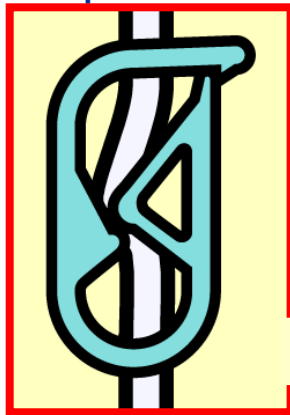
POINT Key points for safe use

(Case 1) Overdrainage occurred when staff failed to open the clamp on the filter side of the drip chamber after a change in patient body position, and the patient complained of headache and feeling queasy.

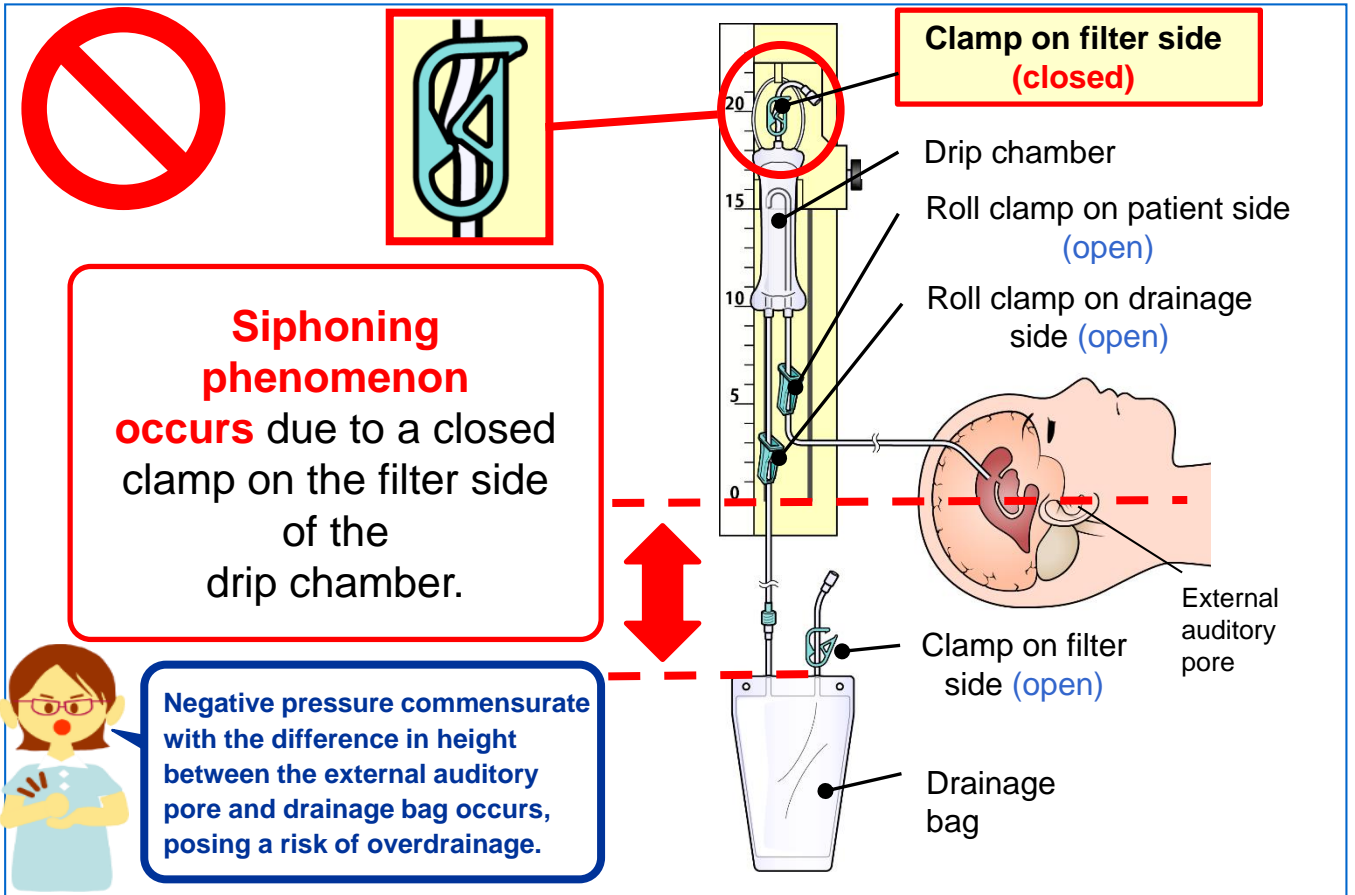
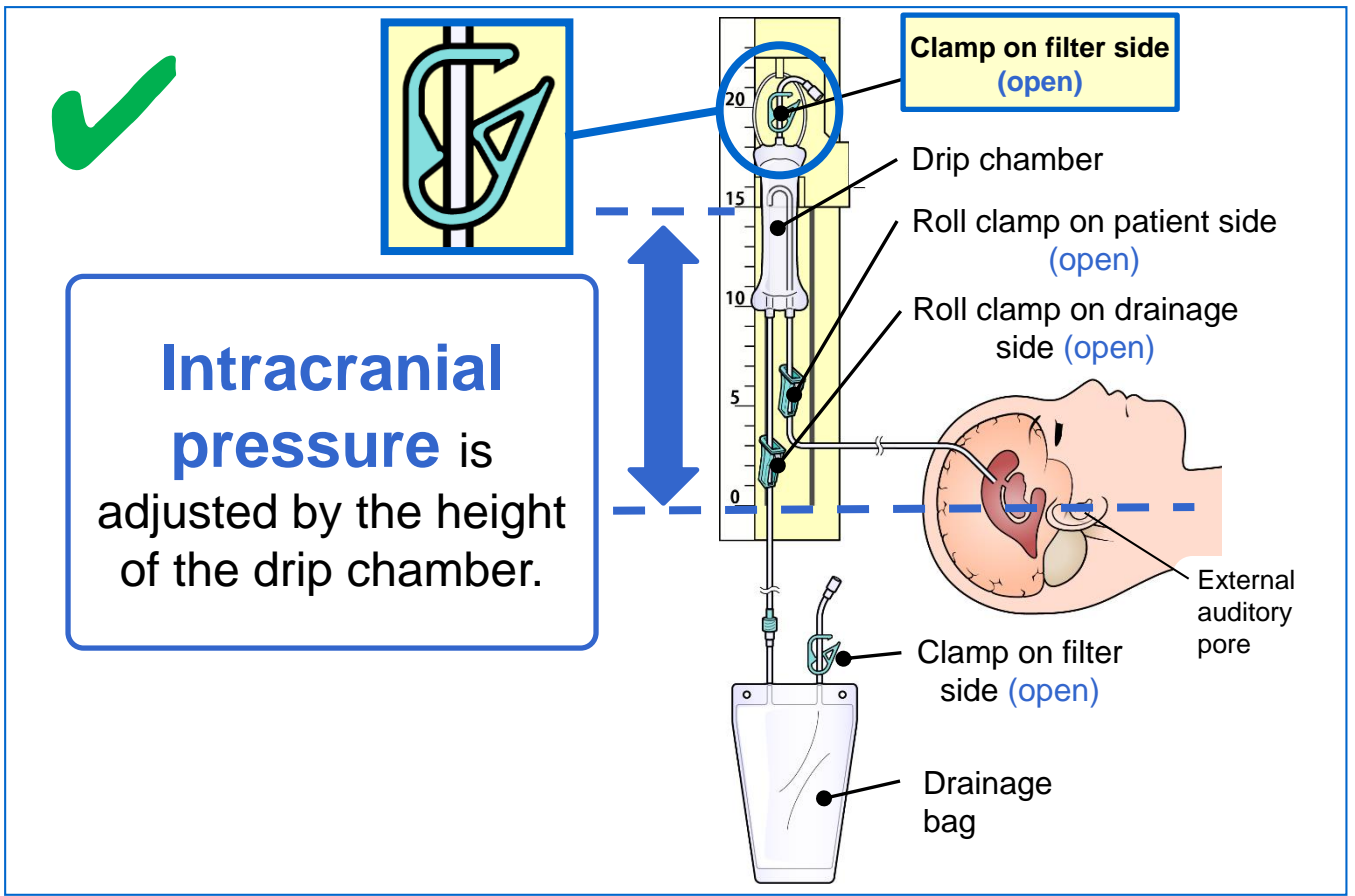
1 Precautions when handling open ventricular drainage (1)

- Make sure that all clamps are open after a change in patient body position.

Clamp on filter side



Mechanism of open ventricular drainage circuit

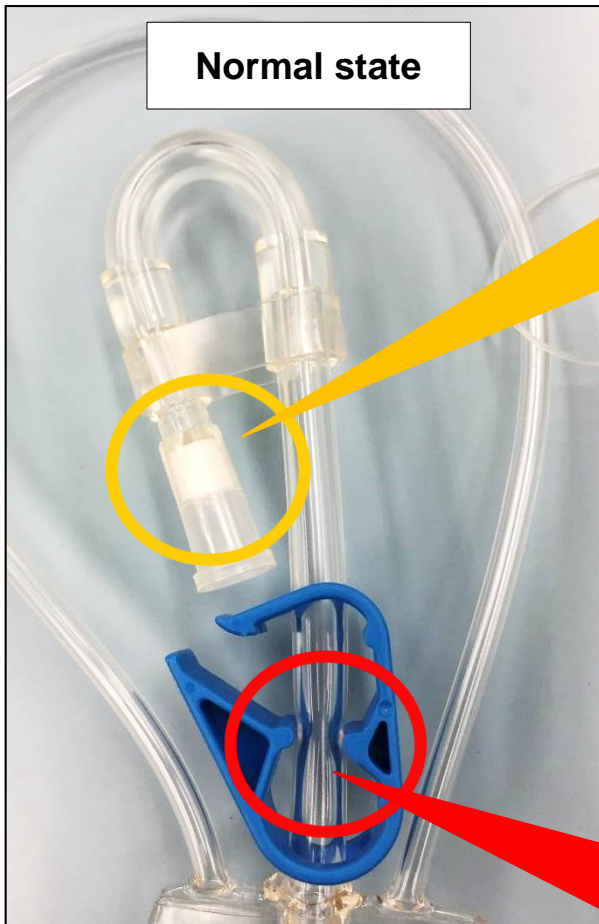


(Case 2) The clamp was opened after the dry-bath was finished, but overdrainage occurred because the filter at the top of the drip chamber was wet with cerebrospinal fluid. The patient complained of headache, and cerebral haemorrhage was observed.

(Case 3) The clamp was opened after the transfer of the patient, but overdrainage occurred because the tube at the top of the drip chamber was dented, and haemorrhage and paralysis were observed in the patient.

2 Precautions when handling open ventricular drainage (2)

- After dry-bath or transfer of a patient, make sure that the filter is not wet and the tube caught in the clamp on the filter side is not dented.



Photos provided by FORTE GROW MEDICAL co., Ltd.

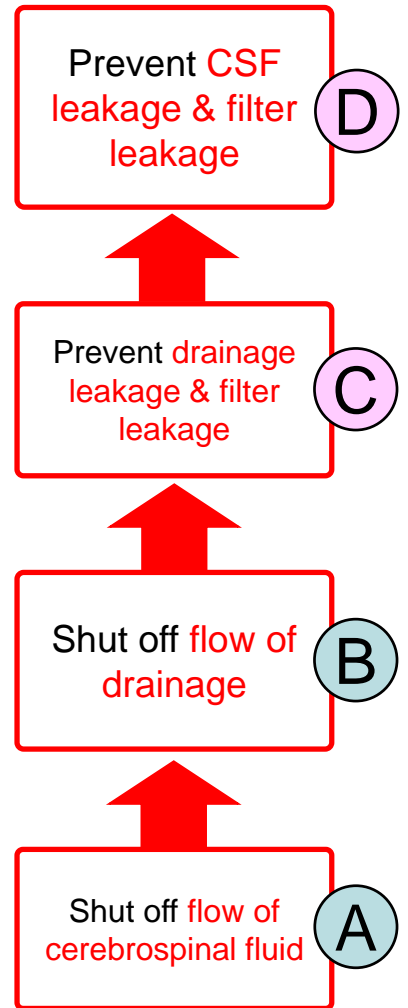
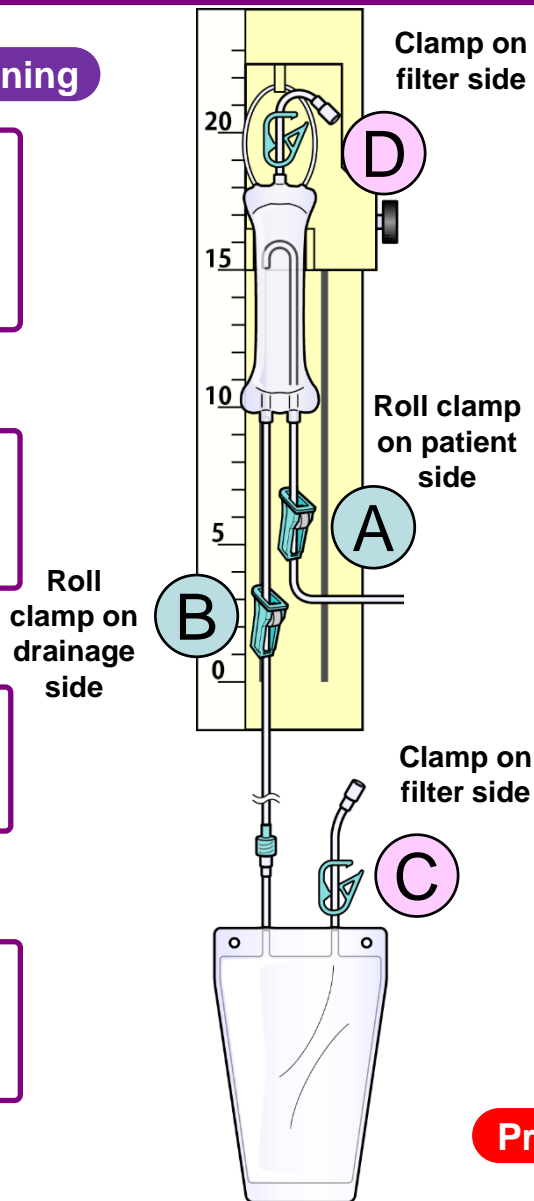
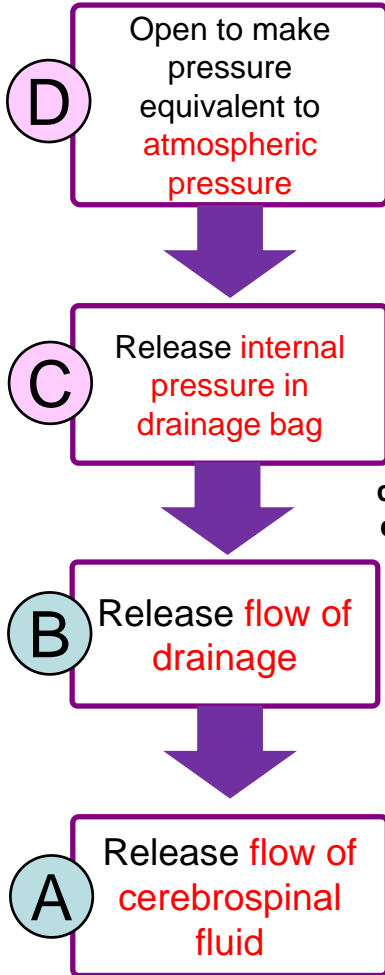
Wet filters and dented tubes can cause a siphoning phenomenon.



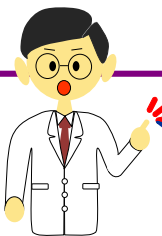
Correct procedure for manipulating open ventricular drainage circuit

- Make sure you understand the functions of each clamp and the mechanism of the circuit before your operation.

Procedure when opening



Procedure when closing



Please educate staff about the mechanism of the circuit and how to control it, and reconfirm in-hospital procedures, such as the method of checking, to prevent a failure to open the clamp on the filter side.

About this information

- * PMDA Medical Safety Information is issued by the Pharmaceuticals and Medical Devices Agency for the purpose of providing healthcare providers with clearer information from the perspective of promoting the safe use of pharmaceuticals and medical devices. The information presented here has been compiled, with the assistance of expert advice, from cases collected as Medical Accident Information Reports by the Japan Council for Quality Health Care, and collected as Adverse Drug Reaction and Malfunction Reports in accordance with the Law on Securing Quality, Efficacy and Safety of Pharmaceuticals and Medical Devices.
- * We have tried to ensure the accuracy of this information at the time of its compilation but do not guarantee its accuracy in the future.
- * This information is not intended to impose constraints on the discretion of healthcare professionals or to impose obligations and responsibility on them, but is provided as a support to promote the safe use of pharmaceuticals and medical devices by healthcare professionals.

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