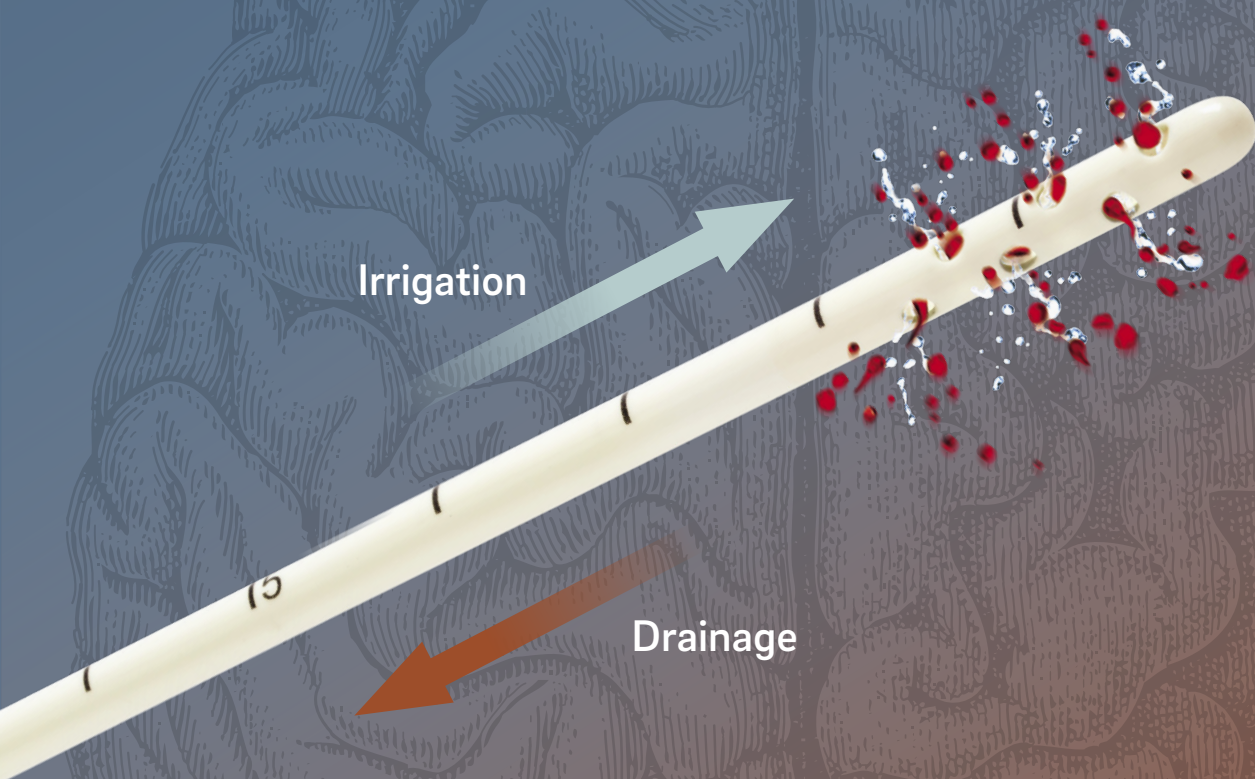


IRRAflow[®]



*The World's First Irrigating
Intracranial Drainage System*

IRRAflow's unique design addresses the shortcomings of traditional CSF management. The system's intelligent digital pump and dual-lumen catheter enable gravity-driven fluid drainage and controlled catheter irrigation, resulting in active fluid exchange.

This active fluid exchange provides:

- Potential reduction of catheter occlusion due to automated cleansing of the catheter tip
- A catheter designed for controlled irrigation, enhancing the ability to remove the collected blood
- Removal of blood and proteins that can start an inflammatory cascade¹ and secondary hemorrhagic events



Integrated, Continuous ICP Monitoring

- Provides continuous pressure measurement without interrupting drainage
- Combines irrigation, drainage, and ICP measurement into one easy-to-use system

The World's First Irrigating Intracranial Drainage System!

Chronic Subdural Hematoma

Case Review by Dr. Sumeet Vadera from UC Irvine Health

PATHOLOGY TREATED

- 82-year-old male presented with confusion, right sided weakness and neglect, and expressive aphasia.
- Computed tomography demonstrated a 2.5 cm left convexity mixed density extra-axial hematoma, causing a 9 mm rightward midline shift and subfalcine herniation.

TREATMENT DESCRIPTION

- Mini craniotomy for evacuation of the subdural hematoma.
- Intraoperatively, there was minimal brain re-expansion.
- Active Fluid Exchange was performed with the IRRAflow system, with an irrigation rate of 40 ml/hour.

TREATMENT RESULTS

- No catheter occlusion due to IRRAflow's automated irrigation.
- No drainage-related infection.
- Active irrigation and associated drainage assisted in providing controlled re-expansion of brain tissue back into the subdural space.
- Head CT done prior to discharge showed continued improvement in subdural fluid collection and complete resolution of the midline shift.
- The patient was seen on postoperative day 14 with complete resolution of symptoms.



Pre-IRRAflow Treatment



Post-IRRAflow Treatment

IRRAFLOW



Product #

Product Name

Product Description

IRRAFLOW DUAL-LUMEN CATHETER

ICGS 010

IRRAflow 1.5 Catheter, 9F, 40cm

Dual-lumen catheter that combines active irrigation with CSF drainage.

ICGS 020

IRRAflow 2.0 Catheter, 9F, 38cm

Dual-lumen catheter that combines active irrigation with CSF drainage, with a slightly larger inner diameter which enhances fluid removal.



IRRAFLOW TUBE SET

ICDS 020

IRRAflow Tube Set

Intelligent digital pump enables communication between control unit and catheter to provide automated irrigation, fluid drainage, and ICP monitoring.



IRRAFLOW CONTROL UNIT

ICCU 020

IRRAflow Control Unit

Active fluid exchange via an intuitive touchscreen with personalized alarm settings that provide control when managing ICP and CSF.

Customer Service

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1. Mracsko, Eva, Veltkamp, Roland. Neuroinflammation after Intracerebral hemorrhage. Frontiers in Cellular Science. 20 November 2014, 1-13.

Product image not to scale.

IFS-0073-B