

Endoscopic treatment for Upper GI bleeding

Hee Seok Moon

Division of Gastroenterology,
Department of Internal Medicine,
Chungnam National University Hospital,
Daejeon, Korea

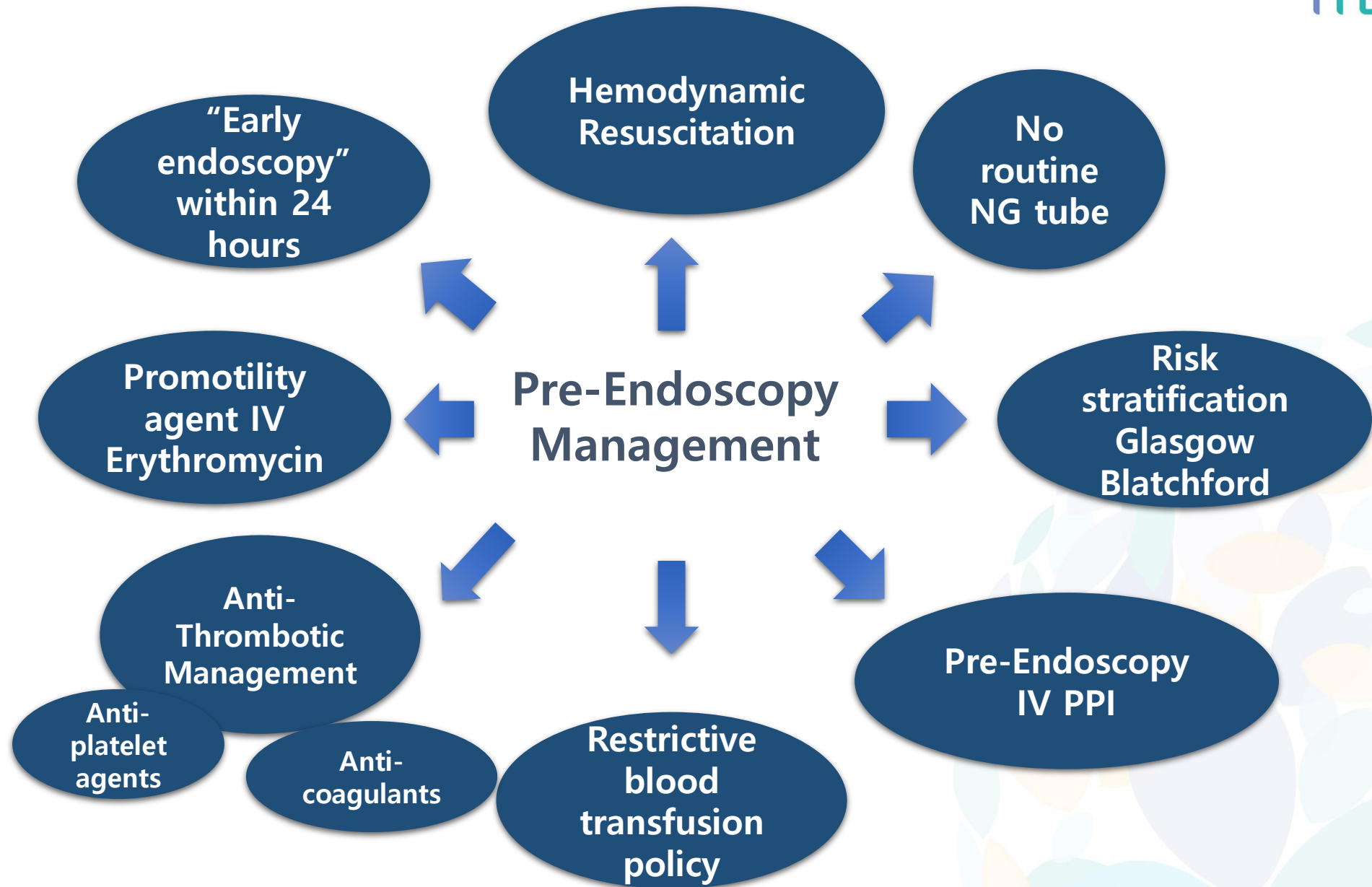
IYEA
2022
International
Young
Endoscopist
Awards
2022

The copyrights on VODs belong to
IDEN and **KSGE**,
and unauthorized access or use is prohibited.

Contents

- **Risk stratification**
- **Endoscopic management**
- **New endoscopic hemostasis**
- **Endoscopy timing**
- **Conclusion**





Risk stratification scores of NVUGIB

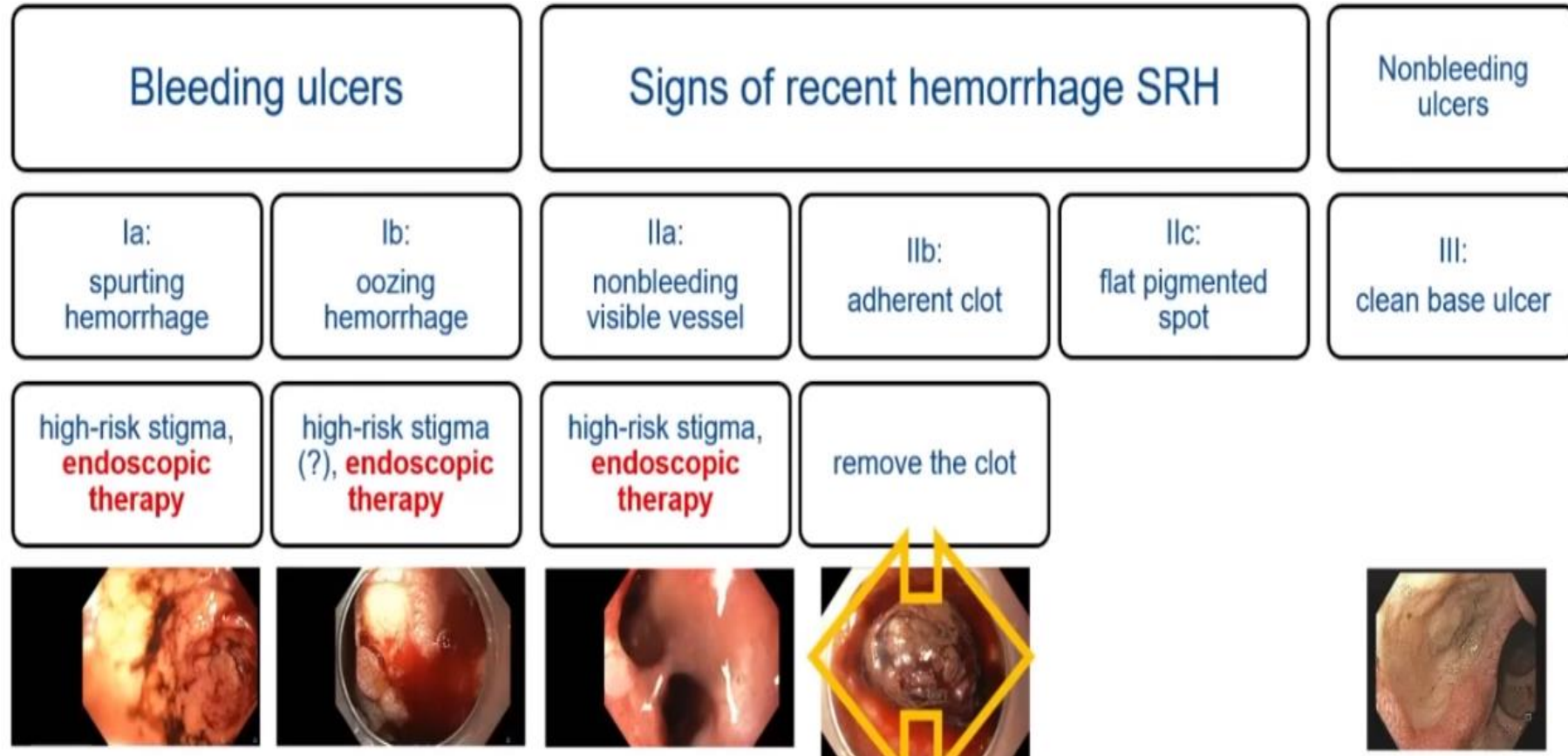
Scoring system	Clinical parameters	Primary outcome
GBS	BUN, hemoglobin, SBP, heart rate, comorbidity	Need intervention
Rockall score	Age, SBP, heart rate, comorbidity, endoscopic findings, stigmata of recent hemorrhage	Mortality
AIMS65 score	Albumin, INR, Mental status, SBP, age	Mean length of stay/mortality

Blatchford O, et al. BMJ. 1997 Aug 30;315(7107):510-4

Rockall TA, et al. GUT 1996;38:316-21

Saltzman JR, et al. Gastrointest Endosc. 2011 Dec 74(6):1215-24

The Forrest Classification



For Forrest Ia, Ib ulcers
(spurting, pulsatile arterial bleeding, oozing)

“Combination Therapy”

Dilute epinephrine (1:10,000) inject 4 quadrants



Mechanical therapy
TTS clips
Cap-mounted clips



Contact thermal therapy
Bipolar, heat probe

Endoscopic management

Injection therapy	Mechanical hemostasis	Cautery hemostasis	Hemostatic powder spray
Diluted epinephrine (1:10,000 in NS)	Hemoclipping (endoclip)	Argon plasma coagulation (APC)	Hemospray™
Sclerosant	Band ligation	Photocoagulation (Nd:YAG laser)	EndoClot™ PHS
Cyanoacrylate glue	Detachable snare (endoloop)	Electrocoagulation (BICAP)	Ankaferd® Blood Stopper
Fibrin sealant	Over-the-Scope clip (OTSC)	Thermal coagulation (Hemostatic forcep, Heater probe)	
	Endoscopic suturing		

- ➔ Classical methods
- ➔ New methods
- ➔ Rarely used methods

Over-the-Scope Clips

Actively bleeding
ulcers

High risk vascular territory

> 2cm

Visible
vessel
> 2 mm

Excavated,
fibrotic

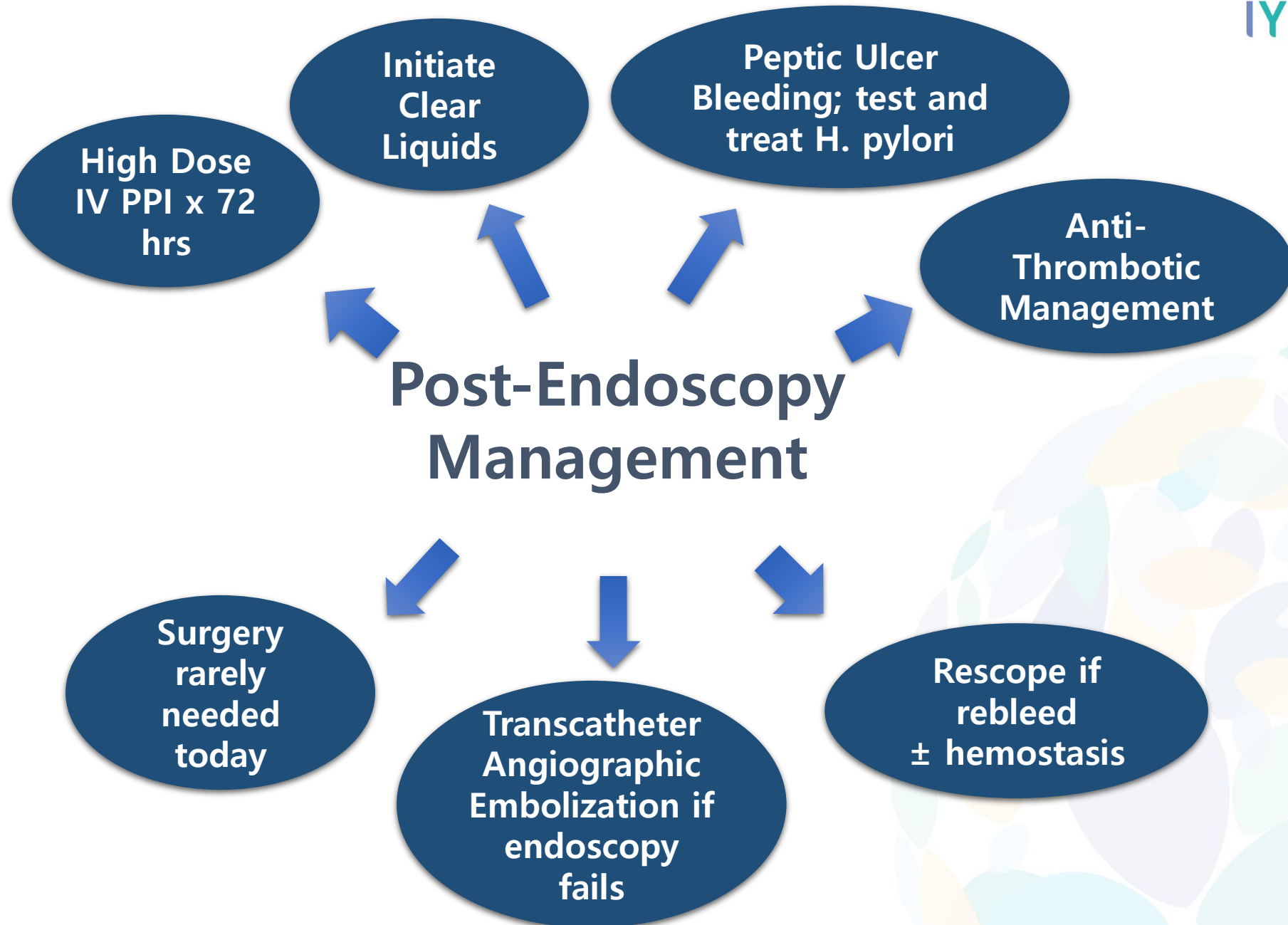
**Gastro
duodenal**

**Left
gastric**

Hemostatic powder spray

NAME	COMPOSITION	ACTION MECHANISM
Hemospray™	Mineral	Absorption of water Concentration of platelets and clotting factors Mechanical tamponade
EndoClot™ PHS	Absorbable hemostatic polysaccharide	Absorption of water Concentration of platelets and clotting factors Mechanical tamponade
Ankaferd® Blood Stopper	Mixture of plants	Encapsulated protein network → Erythrocyte aggregation around the network
Nexpowder	Biocompatible natural polymer	Modified of water absorption capacity using coating technology Reversible cross-linking of amine and aldehyde groups





- UGIB remains a health burden with significant mortality and morbidity
- Existing modalities are effective but outcome variable with operator dependent outcomes
- Hemostatic powders show promise with PUD and other indications ; ease of use, wide application area and repeatable
- Early endoscopy within 24 h of presentation was recommended because it significantly reduces the length of hospital stay and improves outcome.