Supplementary Table 1 Characteristics of the patients in the validation cohort

	GP group (n=78)	PP group (n=23)	P Value
Sex			1.000
Male, n(%)	63(80.8)	19(82.6)	
Female, n(%)	15(19.2)	4(17.4)	
Age, years, median (IQR)	55.0（27.3）	63.0(19.0)	0.082
Previous UGIB history, median (IQR)	22(28.2)	5(21.7)	0.538
Etiology			
Peptic ulcer, n(%)	54(69.2)	13(56.5)	0.257
EGVB, n(%)	6(7.7)	5(21.7)	0.057
UGIC, n(%)	2(2.6)	2(8.7)	0.474
Acute erosive hemorrhagic gastritis, n(%)	11(14.2)	2(8.7)	0.744
Mallord-Weiss Syndrome, n(%)	2(2.6)	0	1.000
Dieulafoy's disease, n(%)	2(2.6)	0	1.000
Bleeding due to endoscopic operations, n(%)	1(1.3)	1(4.3)	0.940
Comorbidities			
Chronic liver disease, n(%)	13(16.7)	6(26.1)	0.310
Liver cirrhosis, n(%)	7(9.0)	5(21.7)	0.096
Stroke, n(%)	11(14.1)	2(8.7)	0.744
Malignancy, n(%)	6(7.7)	1(4.3)	0.930
Heart failure, n(%)	5(6.4)	3(13.0)	0.551
Liver failure, n(%)	7(9.0)	5(21.7)	0.096
Renal failure, n(%)	2(2.6)	2(8.7)	0.474
Coronary heart disease, n(%)	6(7.7)	3(13.0)	0.708

Operation			
Surgery, n(%)	2(2.6)	0	1.000
EMR or ESD, n(%)	1(1.3)	1(4.3)	0.940
Time from symptom onset to admission, hours, , median (IQR)	30.0(64.0)	6.0(22.0)	0.768
Symptoms			
Haematemesis, n(%)	31(39.7)	16(69.6)	0.012
Black stool, n(%)	68(87.2)	19(82.6)	0.830
Syncope, n(%)	10(12.8)	4 (17.4)	0.830
Altered mental status, n(%)	11(14.1)	4(17.4)	0.973
ASA, median (IQR)	2.0(1.0)	2.0(2.0)	0.007
Body signs at admission			
Pulse, median (IQR)	78.0(14.5)	78.0(20.0)	0.619
SBP, median (IQR)	120.0(19.0)	112.0(14.0)	0.660
DBP, median (IQR)	78.0(10.5)	80.0(10.0)	0.987
Laboratory findings at admission			
Neutrophil, ×10^9/L, median (IQR)	6.17(5.50)	6.92(5.48)	0.563
Hemoglobin, g/L, mean±SD	97.0±30.6	90.8±26.1	0.377
INR, median (IQR)	1.1(0.2)	1.1(0.3)	0.940
Albumin, g/L, mean±SD	35.5±6.1	31.5±7.7	0.011
Urea, mmol/L, median (IQR)	8.3(7.6)	11.2(13.0)	0.041
Creatinine, μmol/L, median (IQR)	72.0(31.8)	70.0(36.0)	0.585
Endoscopic appearance			
Dark spots, n(%)	16(20.5)	1(4.3)	0.133
Bleeding, n(%)	16(20.5)	8(34.8)	0.158
Adherent thrombosis, n(%)	11(14.1)	9(39.1)	0.008
Visible vessels, n(%)	16(20.5)	11(47.8)	0.009
Lesion diameter≥2cm, n(%)	7(9.0)	5(21.7)	0.101
SRH, n(%)	28(35.9)	18(78.3)	<0.001

Blood transfusion, n(%)	19(24.4)	16(69.6)	<0.001
Rebleeding, n(%)	0	7(30.4)	<0.001
Length of hospitalization exceeding 14 days, n(%)	7(9.0)	15(65.2)	<0.001

IQR: interquartile ranges; UGIB: upper gastrointestinal bleeding; EGVB: esophageal and gastric variceal bleeding; UGIC: upper gastrointestinal carcinoma; ESD: endoscopic submucosal dissection; EMR: endoscopic mucosal resection; ASA: American Society of Aneshesiologists (ASA) physical status classification system; SBP: systolic blood pressure; DBP: diastolic blood pressure; SD: standard deviation; INR: international normalized ratio; SRH: stigmata of recent hemorrhage.

Supplementary Table 2 Comparison of prognostic predictive ability between MH-STRALP and other scoring systems in the validation cohort

Scoring system	AUROC (95% CI)
MH-STRALP	0.826 (0.734-0.919)
ABC	0.706 (0.583-0.828)
AIMS65	0.649 (0.529- 0.770)
Glasgow	0.638 (0.499-0.777)
PNED	0.770 (0.663-0.877)
Rockall	0.729 (0.624-0.834)

Supplementary Table 3 Comparison of prognostic predictive ability between pre-MH-STRALP and other pre-endoscopic scoring systems in the validation cohort

Scoring system	AUROC (95% CI)
pre-MH-STRALP	0.767 (0.659-0.874)
ABC	0.706 (0.583-0.828)
AIMS65	0.649 (0.529-0.770)
Glasgow	0.638 (0.499-0.777)
PNED	0.770 (0.663-0.877)
pre-Rockall	0.623 (0.499-0.748)