

icu

## 院内感染対策サーベイランスシステム 施設コード

ICU入室時

APACHE X

肺 炎

カテーテル感染

敗血症

創 感 染

尿路感染

その他の感染

ICU退室時

ディバイス

診療点数

退院時サマリ

戻 る

登 錄

## 患者基本データ

氏名	乃須太郎	ICU入室日	2006/02/02
ID	12345	ICU入室時間	12 : 00
生年月日	332/03/27	入院日	2006/02/02
性別	男	年齢	48

## APACHEデータ

	LOW ABNORMAL RANGE					HIGH ABNORMAL RANGE				
	+4	+3	+2	+1	0	+1	+2	+3	+4	
体温	≤ 29.9	30~31.9	32~33.9	34~35.9	36~38.4	38.5~39.9		39~40.9	41~	
平均血圧	≤ 49		50~69		70~109	HELP	110~129	130~159	160~	
心拍数	≤ 39	40~54	55~69		70~109		110~139	140~179	180~	
呼吸数	≤ 5		6~9	10~11	12~24	25~34		35~49	50~	
酸素化			F <sub>i</sub> O <sub>2</sub> ≤ 0.5 (A-aDO <sub>2</sub> )	<230			200~349	350~499	500~	
HELP	<55	55~66	61~70	70+	(P <sub>O</sub> 2)	F <sub>i</sub> O <sub>2</sub> < 0.5				
pH	<7.15	7.15~7.24	7.25~7.32		7.33~7.49	7.5~7.59		7.6~7.69	7.7~	
Na	≤ 110	111~119	120~129		130~149	150~154	155~159	160~179	180~	
K	<2.5		2.5~2.9	3~3.4	3.5~5.4	5.5~5.9		6~6.9	7~	
Cr [肾不全]			<0.6		0.6~1.4		1.5~1.9	2~3.4	3.5~	
Hb	<20		20~29.9		30~45.9	46~49.9	50~59.9		60~	
WBC	<1		1~2.9		3~14.9	15~19.9	20~39.9		40~	

慢性疾患の合併 肝硬変 □ GICG [印] HELP

診断 Category ICH/SDH/SAH

Category Weight 0.729

クリア

APACHE II score

31

予測死亡率

84.9



saps<sup>3</sup>.org

From the Evaluation of the Individual Patient to the Evaluation of the ICU



# SAPS II

(New Simplified Acute Physiology Score)

Type of admission	Chronic diseases	Glasgow (Help)
<input type="text"/> 0	<input type="text"/> 0	<input type="text"/> 0
Age	Syst. Blood Pressure	Heart rate
<input type="text"/> 0	<input type="text"/> 0	<input type="text"/> 0
Temperature	If MV or CPAP PaO <sub>2</sub> /FIO <sub>2</sub> (mmHg)	Urine output
<input type="text"/> 0	<input type="text"/> 0	<input type="text"/> 0
Serum Urea or BUN	WBC	Potassium
<input type="text"/> 0	<input type="text"/> 0	<input type="text"/> 0
Sodium	HCO <sub>3</sub> -	Bilirubin
<input type="text"/> 0	<input type="text"/> 0	<input type="text"/> 0

Definitions

## SAPS II

0
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<b>Predicted Death Rate</b>	
<input type="text" value="0"/>	Logit = <input type="text"/>
<input type="button" value="Clear"/>	Logit = $-7,7631 + 0,0737 \cdot (\text{SAPS II}) + 0,9971 \cdot \ln((\text{SAPS II}) + 1)$ Predicted Death Rate = $e^{(\text{Logit})} / (1 + e^{(\text{Logit})})$

Ref : Le Gall JR et al. A new simplified acute physiology score (SAPS II) based on a European / North American multicenter study. *JAMA*. 1993;270:2957-63

Web Page: [Jean-Yves Marandon](#)  
Dept. of Anesthesia. FOCH Hospital (92 Suresnes- France)

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[Back to the](#)  [page](#)

[Back to SAPS II](#)

## Definitions

**Data are collected during the first 24 hours after ICU admission**

### **Age**

Use the patient's age in years at last birthday

### **Heart rate**

Use the worst value in 24 hours, either low or high rate; if it varied from cardiac arrest (11pts) to extreme tachycardia (7pts), assign 11points.

### **SBP**

Use the same method as for hearth rate : eg, if it varied from 60 mmHg to 205 mmHg, assign 13 Points.

### **Body temperature**

Use the highest temperature in °C or °F

### **PaO<sub>2</sub>/FiO<sub>2</sub> ratio**

If ventilated or CPAP, use the lowest value of the ratio.

### **Urinary output**

if the patient is in the intensive care unit for less than 24 hours, make the calculation for 24 hours.

### **Serum urea or BUN**

Use the highest value in mmol// or g/L for serum urea, in mg/dL for the serum urea nitrogen.

### **WBC count**

Use the worst (high or low) WBC count.

### **Serum potassium level**

Use the worst (high or low) value.

### **Serum Sodium level**

Use the worst (high or low) value.

### **Serum bicarbonate level**

Use the lowest value.

**Bilirubin**

Use the highest value in micromol/L or mg/dL

**Glasgow coma score**

Use the lowest value. If the patient is sedated, record the estimated Glasgow coma score before sedation.

**AIDS**

Yes , if HIV positive with clinical complications as *pneumocystis carinii* pneumonia, Kaposi's sarcoma, Lymphoma, tuberculosis or toxoplasma infection.

**Hematologic malignancy**

Yes, if lymphoma, acute leukemia, or multiple myeloma.

**Metastatic cancer**

Yes, if proven metastasis by surgery, C.T. scan or any other method.

[Back to SAPS II](#)

**Back to SAPS II**

Eyes Open	Verbal	Motor
<input type="radio"/> Spontaneous <input type="radio"/> To speech <input type="radio"/> To pain <input type="radio"/> Absent	<input type="radio"/> Converses / Oriented <input type="radio"/> Converses / Disoriented <input type="radio"/> Inappropriate <input type="radio"/> Incomprehensible <input type="radio"/> Absent	<input type="radio"/> Obeys <input type="radio"/> Localizes pain <input type="radio"/> Withdraws (flexion) <input type="radio"/> Decorticate (flexion) rigidity <input type="radio"/> Decerebrate (extension) rigidity <input type="radio"/> Absent

Glasgow=

## SAPS 3 Admission Score

### Box I

Age, years

Length of stay before ICU admission, days

Intra-hospital location before ICU admission

#### Co-Morbidities

Cancer therapy

Cancer

Haematological cancer

Chron. HF (NYHA IV)

Cirrhosis

AIDS

Use of major therapeutic options before ICU admission: Vasoactive drugs

### Box II

ICU admission: Planned or Unplanned

Reason(s) for ICU admission

Cardiovascular:

Hepatic:

Digestive:

Neurologic:

Surgical status at ICU admission

Anatomical site of surgery

Acute infection at ICU admission

Nosocomial

Respiratory

### Box III

Estimated GCS (lowest), points

Total bilirubine (highest) mg/dL ( $\mu$ mol/L)

Body temperature (highest), Degrees Celsius

Creatinine (highest), mg/dL ( $\mu$ mol/L)

Heart rate (highest), beats/minute

Leukocytes (lowest), G/L

Hydrogen ion concentration (lowest), pH

Platelets (lowest), G/L

Systolic blood pressure (lowest), mmHg

Oxygenation

**SAPS 3 points**

**Probability of death (%)**

<40 (default)
<14 (default)
Operative room (default)
no (default)
no (default)
no (default)
ro (default)
ro (default)
no (default)
ro (default)
planned (default)
All others (default)
All others (default)
All others (default)
All others (default)
scheduled surgery (default)
All others (default)
no (default)
no (default)
>=13 (default)
<2 mg/dL (<34.2 µmol/L) (default)
>=35 (default)
<1.2 mg/dL (<106.1 µmol/L) (default)
<120 (default)
<15 (default)
>7.25 (default)
>=100 (default)
>=120 (default)
PaO <sub>2</sub> >=60 and no MV (default)

16  
0

# TISS (TISS - 76)

**(Therapeutic Intervention Scoring System - Update 1983)**

<b>4 points</b>		<b>3 points</b>	
a. Cardiac arrest and/or countershock within past 48 h	<input type="radio"/> yes <input type="radio"/> no	a. Central iv hyperalimentation (includes renal, cardiac, hepatic failure fluid)	<input type="radio"/> yes <input type="radio"/> no
b. Controlled ventilation with or without PEEP	<input type="radio"/> yes <input type="radio"/> no	b. Pacemaker on standby	<input type="radio"/> yes <input type="radio"/> no
c. Controlled ventilation with intermittent or continuous muscle relaxants	<input type="radio"/> yes <input type="radio"/> no	c. Chest tubes	<input type="radio"/> yes <input type="radio"/> no
d. Balloon tamponade of varices	<input type="radio"/> yes <input type="radio"/> no	d. IMV or assisted ventilation	<input type="radio"/> yes <input type="radio"/> no
e. Continuous arterial infusion	<input type="radio"/> yes <input type="radio"/> no	e. CPAP	<input type="radio"/> yes <input type="radio"/> no
f. Pulmonary artery catheter	<input type="radio"/> yes <input type="radio"/> no	f. Concentrated K <sup>+</sup> infusion via central catheter	<input type="radio"/> yes <input type="radio"/> no
g. Atrial and/or ventricular pacing	<input type="radio"/> yes <input type="radio"/> no	g. Nasotracheal or orotracheal intubation	<input type="radio"/> yes <input type="radio"/> no
h. Hemodialysis in unstable patient	<input type="radio"/> yes <input type="radio"/> no	h. Blind intratracheal suctioning	<input type="radio"/> yes <input type="radio"/> no
i. Peritoneal dialysis	<input type="radio"/> yes <input type="radio"/> no	i. Complex metabolic balance (frequent intake and output)	<input type="radio"/> yes <input type="radio"/> no
j. Induced hypothermia	<input type="radio"/> yes <input type="radio"/> no	j. Multiple ABG, bleeding, and/or STAT studies (> 4 shift)	<input type="radio"/> yes <input type="radio"/> no
k. Pressure-activated blood infusion	<input type="radio"/> yes <input type="radio"/> no	k. Frequent infusion of blood products (>5 units /24 h)	<input type="radio"/> yes <input type="radio"/> no
l. G-suit.	<input type="radio"/> yes <input type="radio"/> no	l. Bolus iv medication (nonscheduled)	<input type="radio"/> yes <input type="radio"/> no
m. Intracranial pressure monitoring	<input type="radio"/> yes <input type="radio"/> no	m. Vasoactive drug infusion (1 drug)	<input type="radio"/> yes <input type="radio"/> no
n. Platelet transfusion	<input type="radio"/> yes <input type="radio"/> no	n. Continuous antiarrhythmia infusions	<input type="radio"/> yes <input type="radio"/> no
o. IABP (Intra Aortic Balloon Pressure)	<input type="radio"/> yes <input type="radio"/> no	o. Cardioversion for arrhythmia (not defibrillation).	<input type="radio"/> yes <input type="radio"/> no
p. Emergency operative procedures (within past 24 h)	<input type="radio"/> yes <input type="radio"/> no	p. Hypothermia blanket	<input type="radio"/> yes <input type="radio"/> no

q. Lavage of acute GI bleeding	<input type="radio"/> yes <input type="radio"/> no	q. Arterial line	<input type="radio"/> yes <input type="radio"/> no
r. Emergency endoscopy or bronchoscopy	<input type="radio"/> yes <input type="radio"/> no	r. Acute digitalization - within 48 h	<input type="radio"/> yes <input type="radio"/> no
s. Vasoactive drug infusion (> 1 drug)	<input type="radio"/> yes <input type="radio"/> no	s. Measurement of cardiac output by any method	<input type="radio"/> yes <input type="radio"/> no
		t. Active diuresis for fluid overload or cerebral edema	<input type="radio"/> yes <input type="radio"/> no
		u. Active Rx for metabolic alkalosis	<input type="radio"/> yes <input type="radio"/> no
		v. Active Rx for metabolic acidosis.	<input type="radio"/> yes <input type="radio"/> no
		w. Emergency thora-para and peri-cardiocenteses.	<input type="radio"/> yes <input type="radio"/> no
		x. Active anticoagulation (initial 48 h)	<input type="radio"/> yes <input type="radio"/> no
		y. Phlebotomy for volume overload	<input type="radio"/> yes <input type="radio"/> no
		z. Coverage with more than 2 iv antibiotics	<input type="radio"/> yes <input type="radio"/> no
		aa. Rx of seizures or metabolic encephalopathy (within 48 h of onset)	<input type="radio"/> yes <input type="radio"/> no
		bb. Complicated orthopedic traction	<input type="radio"/> yes <input type="radio"/> no
<b>2 points</b>		<b>1 point</b>	
a. CVP ( central venous pressure)	<input type="radio"/> yes <input type="radio"/> no	a. ECG monitoring	<input type="radio"/> yes <input type="radio"/> no
b. 2 peripheral iv catheter	<input type="radio"/> yes <input type="radio"/> no	b. Hourly vitals signs	<input type="radio"/> yes <input type="radio"/> no
c. Hemodialysis stable patient	<input type="radio"/> yes <input type="radio"/> no	c. 1 peripheral iv catheter	<input type="radio"/> yes <input type="radio"/> no
d. fresh tracheostomy (less than 48 h)	<input type="radio"/> yes <input type="radio"/> no	d. Chronic anticoagulation	<input type="radio"/> yes <input type="radio"/> no
e. Spontaneous respiration via endotracheal tube or tracheostomy (T-piece or trach mask)	<input type="radio"/> yes <input type="radio"/> no	e. Standard intake and output (q 24 h)	<input type="radio"/> yes <input type="radio"/> no
f. GI feedings	<input type="radio"/> yes <input type="radio"/> no	f. STAT blood tests	<input type="radio"/> yes <input type="radio"/> no
g. Replacement of excess fluid loss	<input type="radio"/> yes <input type="radio"/> no	g. Intermittent scheduled iv medications	<input type="radio"/> yes <input type="radio"/> no
h. Parenteral chemotherapy	<input type="radio"/> yes <input type="radio"/> no	h. Routine dressing changes	<input type="radio"/> yes <input type="radio"/> no

i. Hourly neuro vitals signs	<input type="radio"/> yes <input type="radio"/> no	i. Standard orthopedic traction	<input type="radio"/> yes <input type="radio"/> no
j. Multiple dressing changes	<input type="radio"/> yes <input type="radio"/> no	j. Tracheostomy care	<input type="radio"/> yes <input type="radio"/> no
k. Pitressin infusion iv	<input type="radio"/> yes <input type="radio"/> no	k. Decubitus ulcer	<input type="radio"/> yes <input type="radio"/> no
<b>TISS 76 = SUM (points for activities performed) = <span style="border: 1px solid black; padding: 2px;">0</span></b>		l. Urinary catheter	<input type="radio"/> yes <input type="radio"/> no
		m. Supplemental oxygen	<input type="radio"/> yes <input type="radio"/> no
		n. Antibiotics iv (2 or less)	<input type="radio"/> yes <input type="radio"/> no
		o. Chest physiotherapy	<input type="radio"/> yes <input type="radio"/> no
		p. Extensive irrigations, packings or debridement of wound, fistula or colostomy	<input type="radio"/> yes <input type="radio"/> no
		q. GI decompression	<input type="radio"/> yes <input type="radio"/> no
		r. Peripheral hyperalimentation / Intralipid therapy	<input type="radio"/> yes <input type="radio"/> no

## Classification

Class IV : >= 40 points

Class III : 20 - 39 points

Class II : 10 -19 points

Class I : < 10 points

## TISS explanation code

4 Point Interventions : a) Point score for 2 days after more recent cardiac arrest. b) This does not mean intermittent mandatory ventilation which is a 3-point intervention. It does mean that regardless of the internal plumbing of the ventilator, the patient's full mandatory needs are being supplied by the machine. Whether or not the patient is ineffectively breathing around the ventilator is irrelevant as long as the ventilator is providing all the patient's needed minute ventilation. d) Use Sengstaken-Blakemore or Linton tube for esophageal or gastric bleeding. e) Pitressin infusion via IMA, SMA, gastric artery catheters for control of gastrointestinal bleeding, or other intra-arterial infusion. This does not include standard 3 ml/h heparin flush to maintain catheter patency. g) Active pacing even if a chronic pacemaker. h) Include first 2 runs of an acute dialysis. Include chronic dialysis in patient whose medical situation now renders dialysis unstable. j) Continuous or intermittent cooling to achieve body temperature less than 33°C. k) Use of a blood pump or manual pumping of blood in the patient who requires rapid blood replacement. p) May even be the initial emergency operative procedure - precludes diagnostics tests, i.e. angiography, CT scan.

3 Point Interventions : d) The patient is supplying some of his own ventilatory needs. g) Not a daily point score. Patient must have been intubated in the ICU (elective or emergency) within previous 24 h. i) Measurement of intake/output above and beyond the normal 24 h routine. Frequent adjustment of intake according to total output. x) Includes Rheomacrodex.

bb) For example, Strykerframe, CircOlectric.

2 Point Interventions : g) Replacement of clear fluids over and above the ordered maintenance level.

1 Point Interventions : k) Must have a decubitus ulcer. Does not include preventive therapy.

## **General guidelines for use of TISS**

- 1) Data should be collected at the same time each day, preferably in the morning and by the same observer.
- 2) A TISS item should be checked if it was performed at any time during the previous 24 h.
- 3) When the patient is discharged from the ICU, we recommend a discharge TISS that reflects the previous shift or 8 h period.
- 4) Total TISS points should decrease as the patient improves. Conversely, one can safely assume that if TISS points increase, more interventions or more intensive care is being delivered to the patient indicating deterioration of the patient's condition. Therefore, if the TISS points are rising while the patient is, in fact, improving or vice versa, check for errors because interventions may have been added inappropriately. A simple question to the patient's nurse concerning the patient's current status is helpful.
- 5) Many interventions are interrelated and can be automatically eliminated from consideration. For example, if the patient was extubated for previous 24 h, any intervention related to an intubated patient such as controlled ventilation will not apply.
- 6) When several related intervention are applied within the same 24 h, only award 1 set of points for the maximum intervention. For example, if a patient was on controlled ventilation (4 points), then paced on IMV (3 points), to CPAP (3 points), to T-piece (2 points), and then extubated all within the same 24 h period, assign only 4 points (for controlled ventilation), the maximum intervention offered.
- 7) Though not essential, we recommend that TISS data collectors have a critical care nursing background. they can easily identify the interventions and make the appropriate associations within and between categories. Collection time is minimized and results are reproducible.

## **Reference**

Keene AR and al. Therapeutic Intervention Scoring System : Update 1983. *Crit Care Med*. 1983;11,1-3.

Web page: Jean-Yves Marandon



## 患者有害事象の程度(影響度)・調査方法・公表方法の関係(案)

国立大学病院医療安全管理協議会の「影響度分類」・「公表範囲と方法」と、医療機能評価機構の報告範囲の考え方を元に改変。

原則的に、赤色部分が(法律専門家も入る)外部調査委員会、黄色部分がM & Mなど院内調査委員会の開催対象の候補である。

運用にあたっては、「影響度レベル、重大過失の有無、開催の必要性」について、事例ごとに検討し、審議内容を議事録に残す。

レベル	障害の 継続性	障害の 程度	障害の内容	医療機能 評価機構 分類	重大過失あり	重大過失なし	
						予期しなかった、予期 したものと上回った	予期していた
レベル 5	死亡		死亡(原疾患の自然経過によるものを除く)	A.死亡 (恒久)	①	④及び公表が再発防 止に繋がる場合は③	(-)公表が再発防止 に繋がる場合は③
レベル 4b	永続的	中等度 ～高度	永続的な障害や後遺症が残り、有意な機能障 害や美容上の問題を伴う	B.障害残存 (恒久)	①	④及び公表が再発防 止に繋がる場合は③	(-)公表が再発防止 に繋がる場合は③
レベル 4a	永続的	軽度～ 中等度	永続的な障害や後遺症が残ったが、有意な機 能障害や美容上の問題は伴わない		②、必要があ れば①	④及び公表が再発防 止に繋がる場合は③	(-)公表が再発防止 に繋がる場合は③
レベル 3b	一過性	高度	濃厚な処置や治療を要した(バイタルサインの 高度変化、人工呼吸器の装着、手術、入院日 数の延長、外来患者の入院、骨折など)	C.濃厚処 置・治療	③、過失の度 合に応じ②	④及び公表が再発防 止に繋がる場合は③	(-)公表が再発防止 に繋がる場合は③
レベル 3a	一過性	中等度	簡単な処置や治療を要した(消毒、湿布、皮膚 の縫合、鎮痛剤の投与など)		③	④及び公表が再発防 止に繋がる場合は③	(-)公表が再発防止 に繋がる場合は③
レベル 2	一過性	軽度	処置や治療は行わなかった(患者観察の強 化、バイタルサインの軽度変化、安全確認のた めの検査などの必要性は生じた)	軽微な処 置・治療 または 影響なし			
レベル 1	なし		患者への実害はなかった(何らかの影響を与 えた可能性は否定できない)		公表が再発防止に繋がる場合 ③		
レベル 0	一		エラーや医薬品・医療用具の不具合が見られ たが、患者には実施されなかった				

公表方法: ①発生後、速やかな公表 ②調査後、HP等により公表 ③国立大学附属病院全体として一定期間とりまとめて報告  
 ④国立大学附属病院全体としての年度報告 (-) 公表・報告対象としない