

A photograph of a patient lying in a hospital bed, surrounded by medical equipment. The patient is wearing white hospital gowns and has their legs extended. The bed is a metal frame with wheels. To the left, there are blue and yellow tubes connected to the bed. In the background, there are medical monitors and a window with blinds. The text is overlaid on the image in a bold, orange font.

**PREVENCION Y
TRATAMIENTO TEMPRANO DE
LA INJURIA RENAL AGUDA**

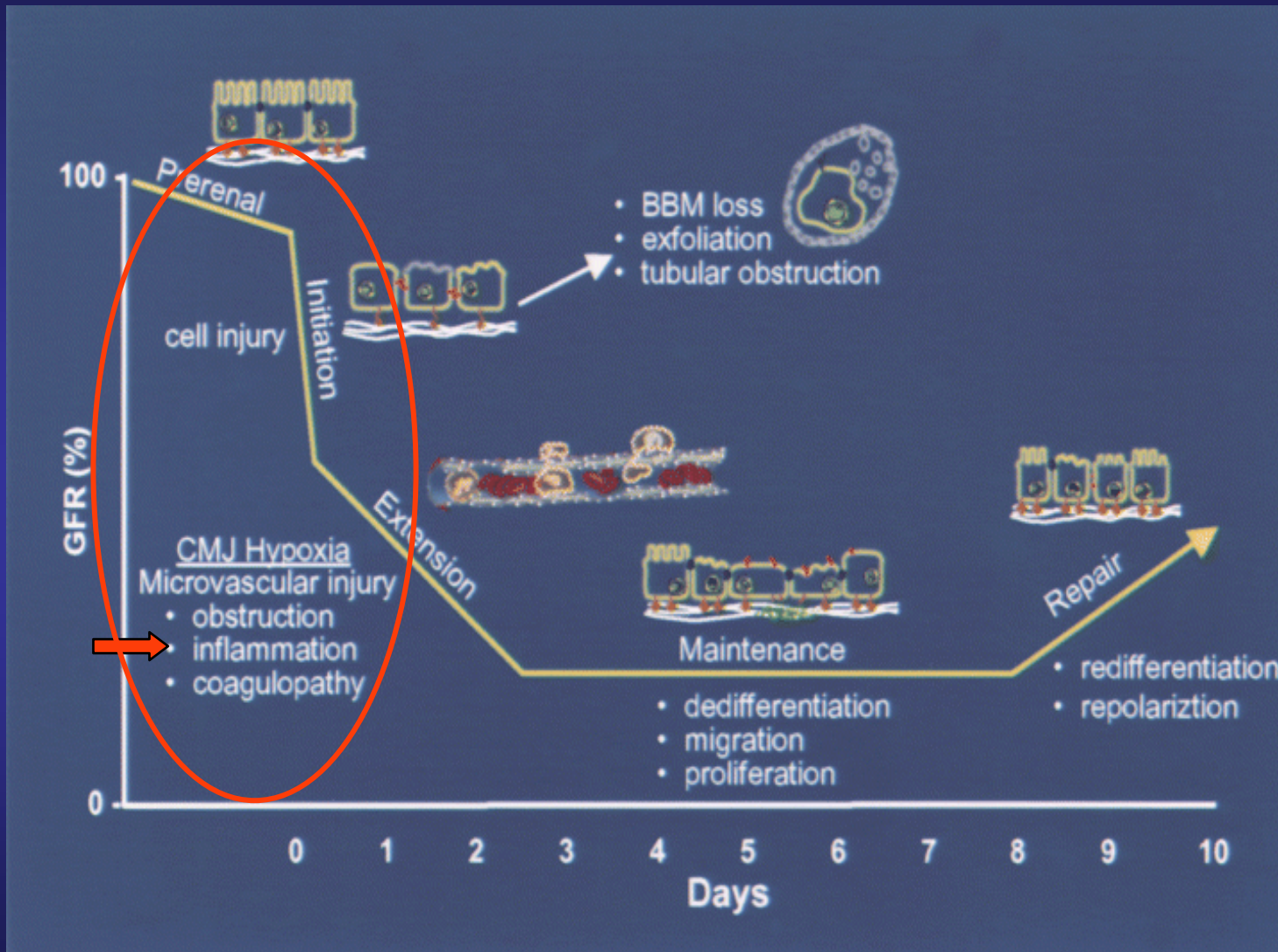
**XIV CONGRESO URGUAYO DE
EMERGENCIA Y TRAUMA**

13 de noviembre de 2008

El conocimiento de la fisiopatología de la lesión y de su dinámica permite identificar las etapas en las que las intervenciones pueden evitar y/o detener la injuria



Relación entre las fases clínicas y celulares durante la injuria renal isquémica

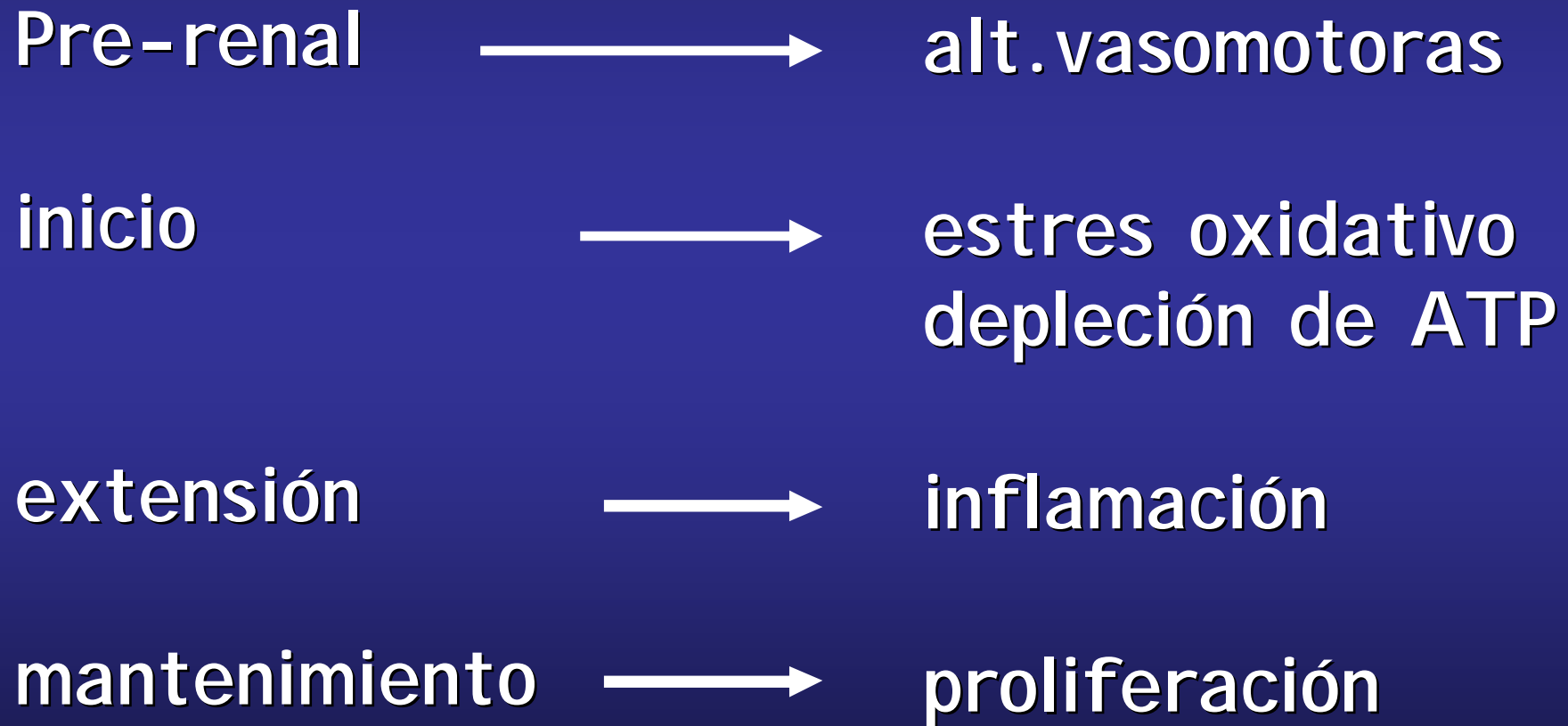


Sutton TA, Fisher CJ, Molitoris BA. Kidney Int 2002, 62:1539

FASES CLINICAS DE LA INJURIA RENAL AGUDA

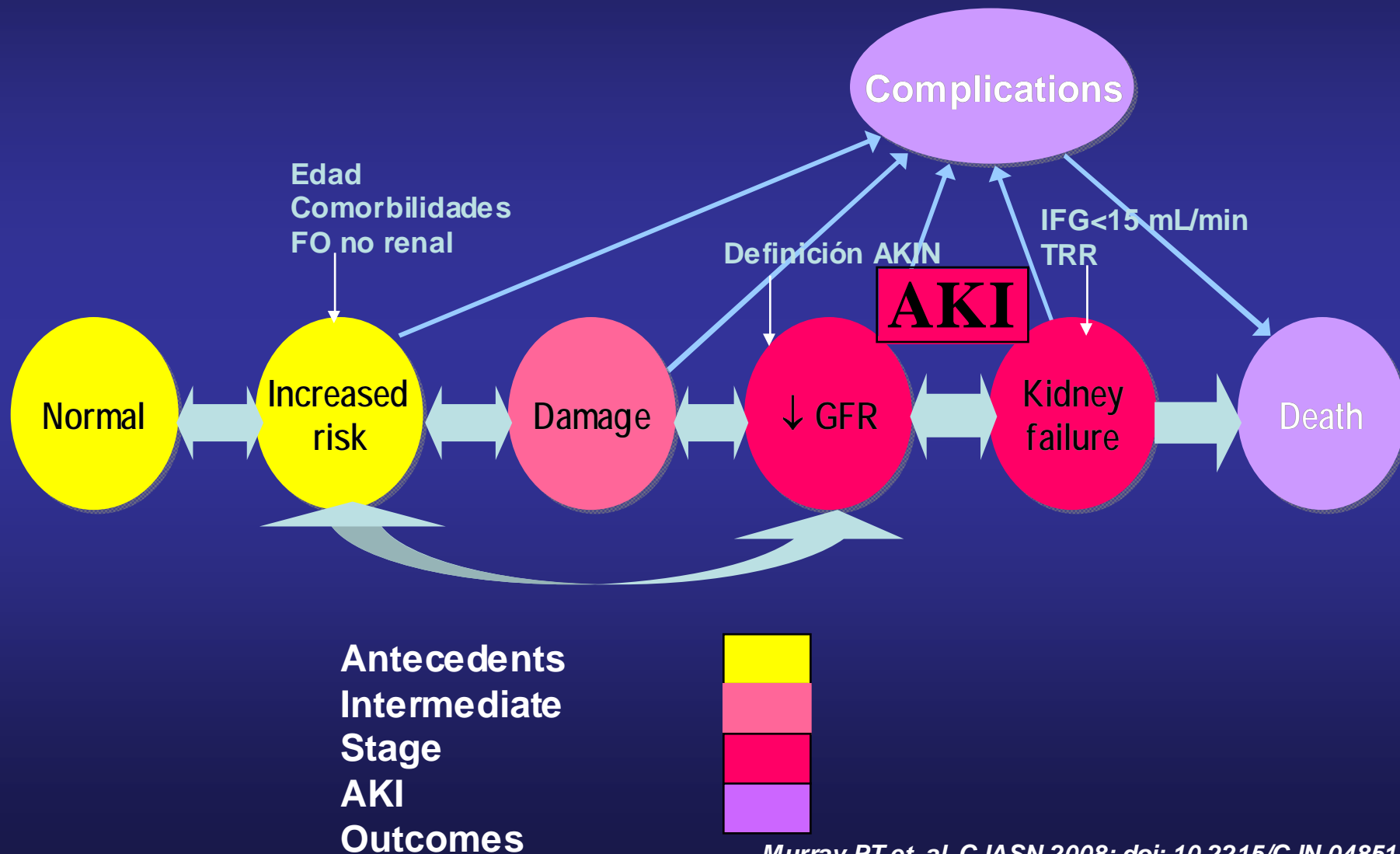


FASES CLINICAS DE LA INJURIA RENAL AGUDA



A Framework and Key Research Questions in AKI Diagnosis and Staging in Different Environments

Patrick T. Murray,* Prasad Devarajan,[†] Andrew S. Levey,[‡] Kai U. Eckardt,^{*§}
 Joseph V. Bonventre,^{||} Raul Lombardi,^{||} Stefan Herget-Rosenthal,^{**} and Adeera Levin^{††}



El diseño de una estrategia eficaz de prevención de la NTA, exige un conocimiento profundo de la patogenia de la misma

PREVENCION DE LA NTA

¿ quien previene ?

¿ cuando previene ?

¿ como previene ?

quien esté en el lugar apropiado y
en el momento adecuado



PREVENCION Y TRATAMIENTO DE LA IRA

PREVENCION

- * de la injuria inicial
- * de la reiteración de la injuria

DROGAS

- * diuréticos
- * dopamina
- * fenoldopam
- * rANP
- * teofilina
- * f. de crecimiento
- * NOS (-)
- * Bloq. citoquinas
- * Anti-ICAM 1
- * stem cells mesenquimales

NUTRICION

REEMPLAZO RENAL

- * indicación
- * oportunidad
- * procedimiento/membranas

PREVENCIÓN DE LA NTA

MANTENER VOLUMEN INTRAVASCULAR

EVITAR NEFROTOXICIDAD
(antimicrobianos, contraste)

a pesar de la importancia de la reposición en la prevención de la IRA, aun no está resuelto cuales son los objetivos hemodinámicos a alcanzar ni cual es el tipo de soluciones más adecuadas.

PREVENCION DE LA NTA

MANTENER VOLUMEN INTRAVASCULAR

ESTIMACION Y MONITOREO DEL VOLUMEN

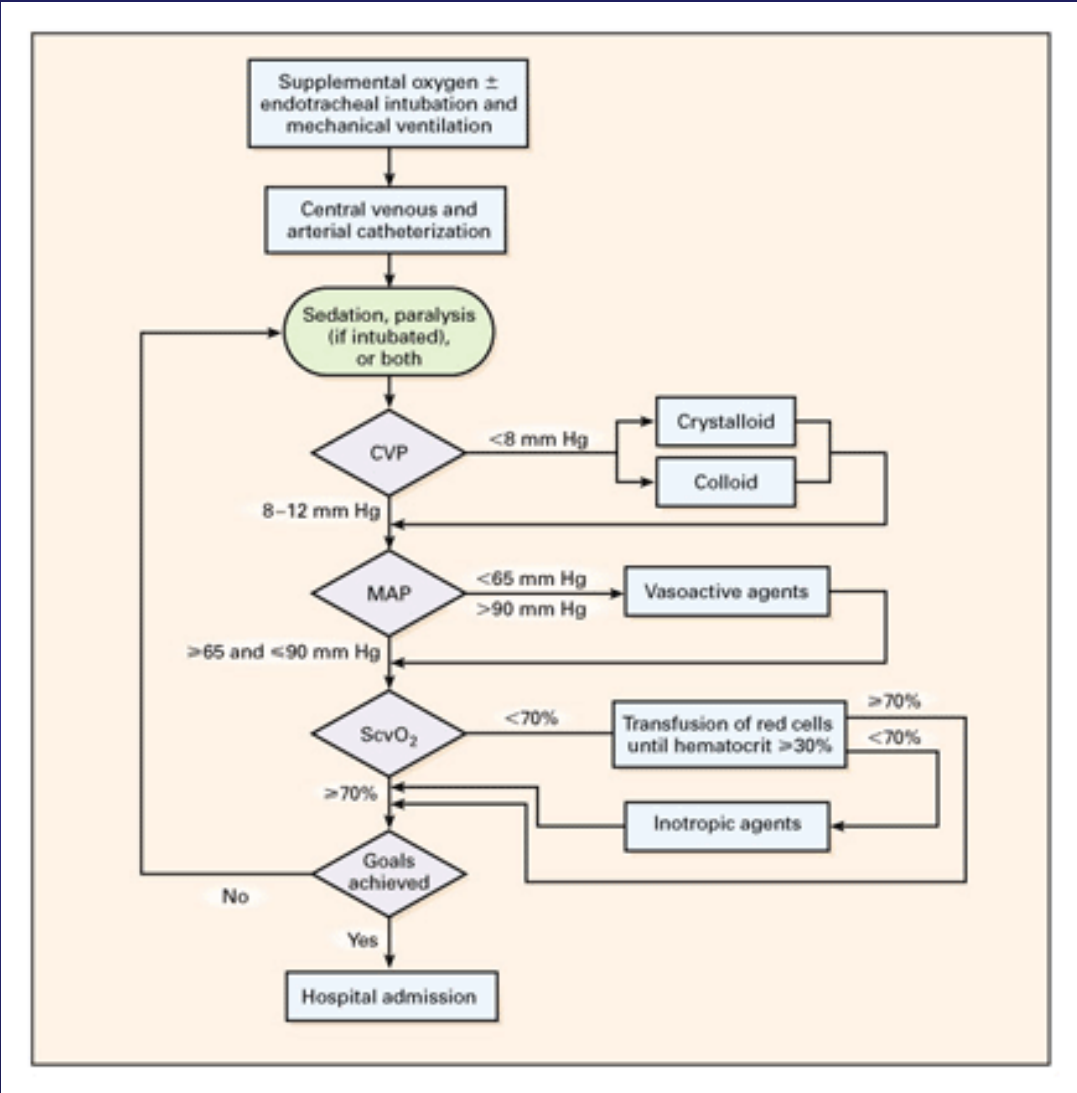
1. ETAPA INICIAL DE REANIMACION

EGDT

2. ETAPA DE REPOSICIÓN CONTINUA

BALANCE 72 hs

Early goal-directed therapy in the treatment of severe sepsis and septic shock.
Rivers E et al. NEJM 2001, 354:1368



Early goal-directed therapy in the treatment of severe sepsis and septic shock.
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TABLE 3. KAPLAN-MEIER ESTIMATES OF MORTALITY AND CAUSES OF IN-HOSPITAL DEATH.*

VARIABLE	STANDARD THERAPY (N=133)	EARLY GOAL-DIRECTED THERAPY (N=130)	RELATIVE RISK (95% CI)	P VALUE
	no. (%)			
In-hospital mortality†				
All patients	59 (46.5)	38 (30.5)	0.58 (0.38–0.87)	0.009
Patients with severe sepsis	19 (30.0)	9 (14.9)	0.46 (0.21–1.03)	0.06
Patients with septic shock	40 (56.8)	29 (42.3)	0.60 (0.36–0.98)	0.04
Patients with sepsis syndrome	44 (45.4)	35 (35.1)	0.66 (0.42–1.04)	0.07
28-Day mortality†	61 (49.2)	40 (33.3)	0.58 (0.39–0.87)	0.01
60-Day mortality†	70 (56.9)	50 (44.3)	0.67 (0.46–0.96)	0.03
Causes of in-hospital death‡				
Sudden cardiovascular collapse	25/119 (21.0)	12/117 (10.3)	—	0.02
Multiorgan failure	26/119 (21.8)	19/117 (16.2)	—	0.27

*CI denotes confidence interval. Dashes indicate that the relative risk is not applicable.

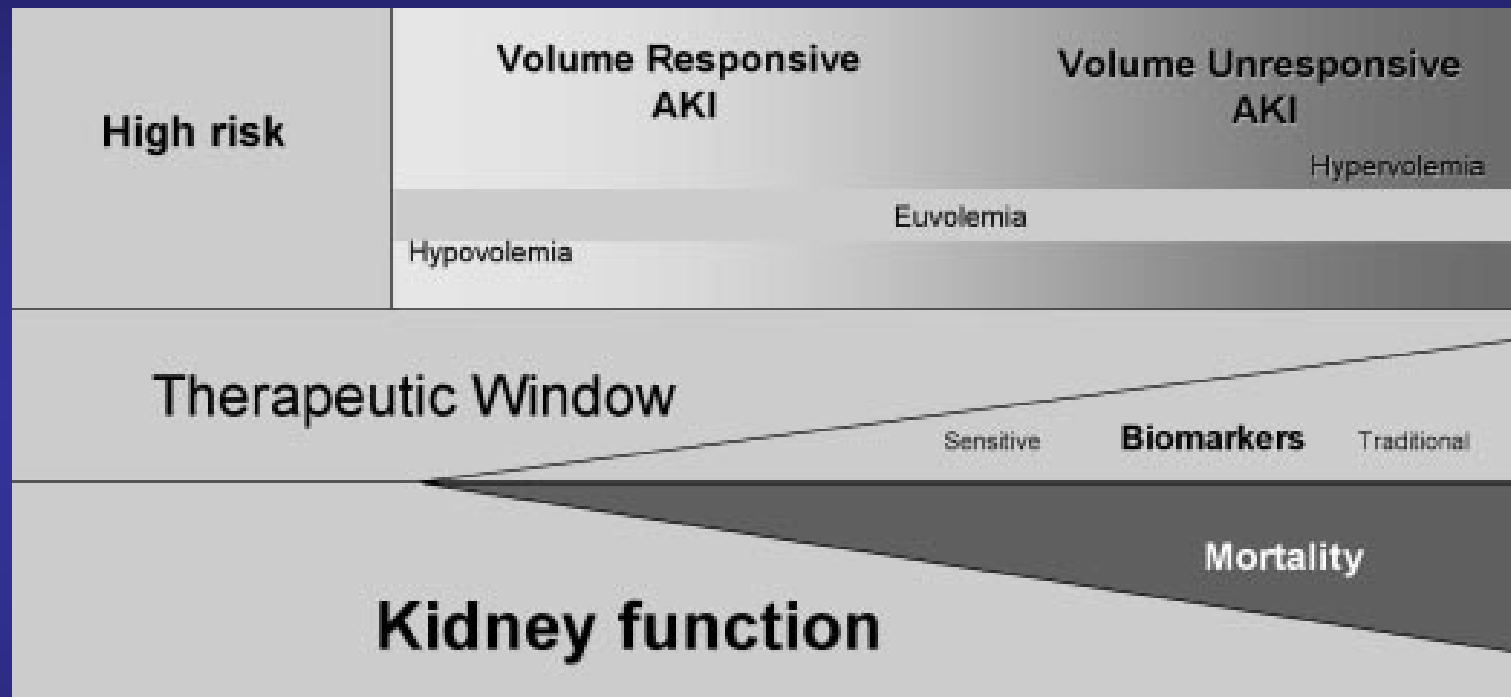
†Percentages were calculated by the Kaplan-Meier product-limit method.

‡The denominators indicate the numbers of patients in each group who completed the initial six-hour study period.

EVALUACION DEL ESTADO DE LA VOLEMIA

- RESPONDEDORES
- NO RESPONDEDORES

RIÑONES	PACIENTE	
+	+	HIPOVOLEMIA
+	-	ICC, CIRROSIS
-	+	NTA



EVALUACION DEL ESTADO DE LA VOLEMIA

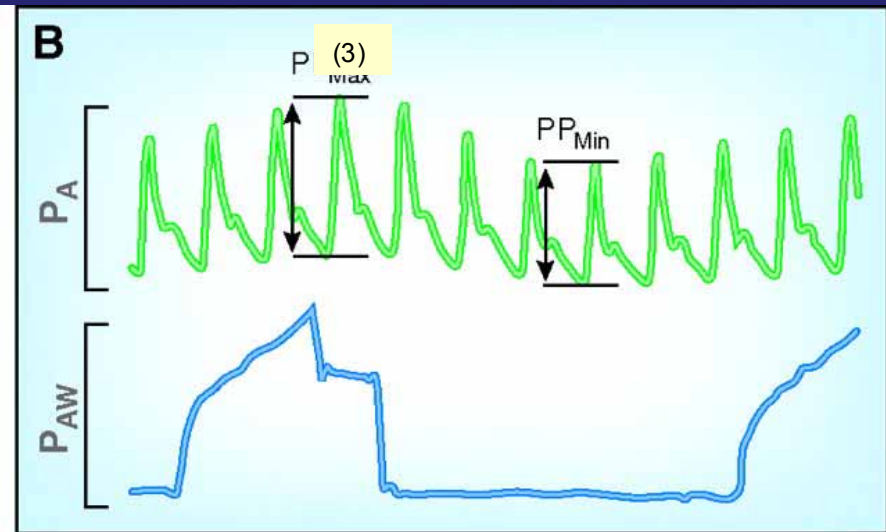
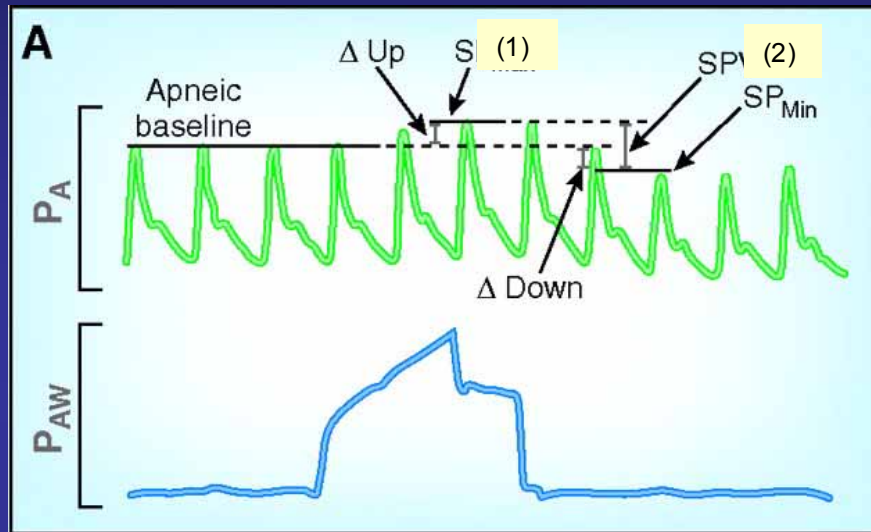
1. INDICADORES DE PRESION DE LLENADO

- PVC
- PCP (Pw)

2. INDICADORES DINAMICOS

(usan variaciones de VS/PA con el ciclo respiratorio)

- ΔP . SISTOLICA (PAS Mx – PAS Mn post-inspiración)
- P.PULSO (PP) = PAS – PAD
- $\Delta PP = PP Mx - PP Mn / media PPMx-PPMn$



- (1) SP: Presión sistólica
- (2) SPV: Variación de presión sistólica
- (3) PP: presión de pulso

A positive fluid balance is associated with a worse outcome in patients with acute renal failure. Payen D. et al. Crit Care 2008, 12:R74

Table 2

Hazard ratios: results of multivariate Cox regression analysis for 60-day mortality in critically ill patients with acute renal failure

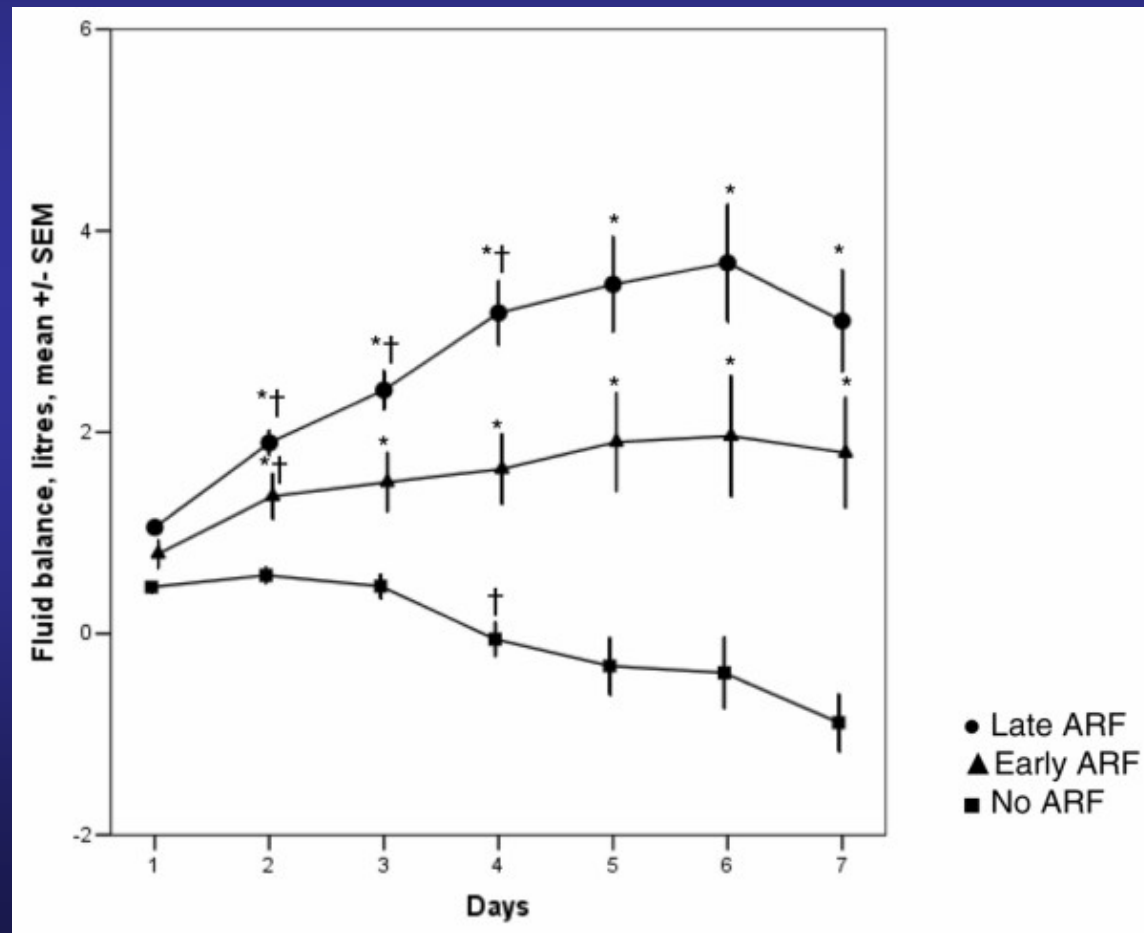
Characteristic	Hazard ratio	95% CI	P value
Age	1.02	1.01–1.03	<0.001
SAPS II (per point)	1.03	1.02–1.04	<0.001
Heart failure	1.38	1.05–1.81	0.02
Medical admission	1.68	1.35–2.08	<0.001
Mean fluid balance, L/24 hours	1.21	1.13–1.28	<0.001
Mechanical ventilation	1.55	1.14–2.11	<0.001
Liver cirrhosis	2.73	1.88–3.95	<0.001

CI, confidence interval; SAPS II, Simplified Acute Physiology Score II.

A positive fluid balance is associated with a worse outcome in patients with acute renal failure. Payen D. et al. Crit Care 2008, 12:R74

Figure 2

Time course of the daily mean fluid balance during intensive care unit stay in patients without acute renal failure (ARF), with early-onset ARF, and with late-onset ARF. Analysis of variance for repeated measures: * $P < 0.05$ pairwise compared with each of the two other subgroups; † $P < 0.05$ compared with the previous time point. SEM, standard error of the mean.





Costa atlántica. Uruguay