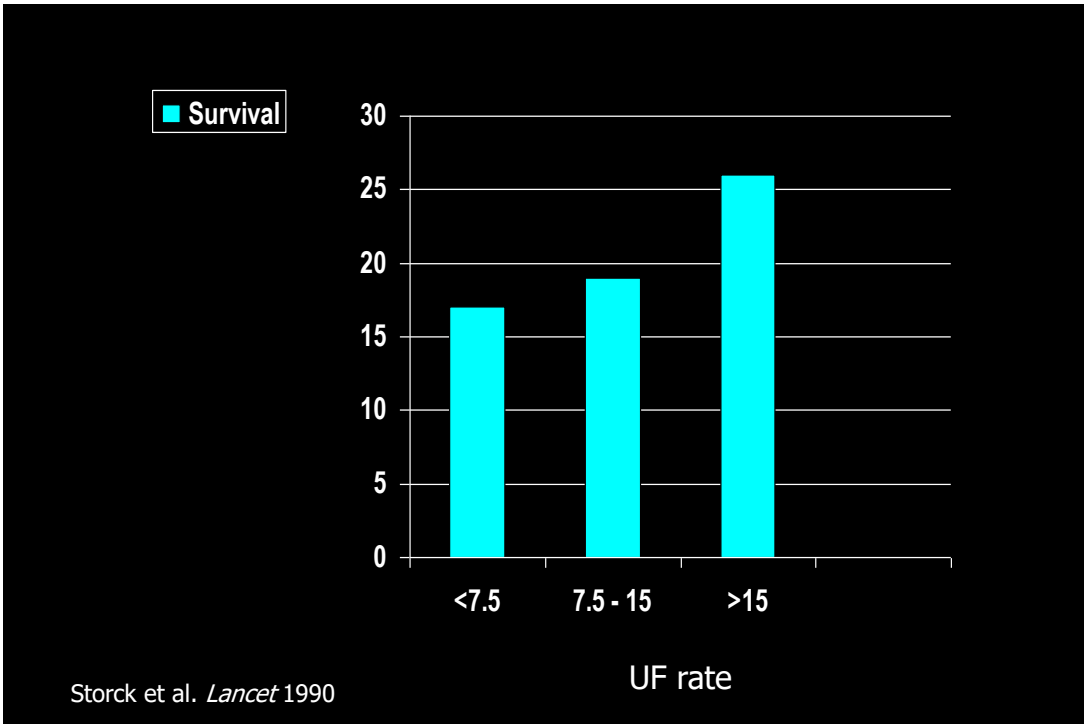
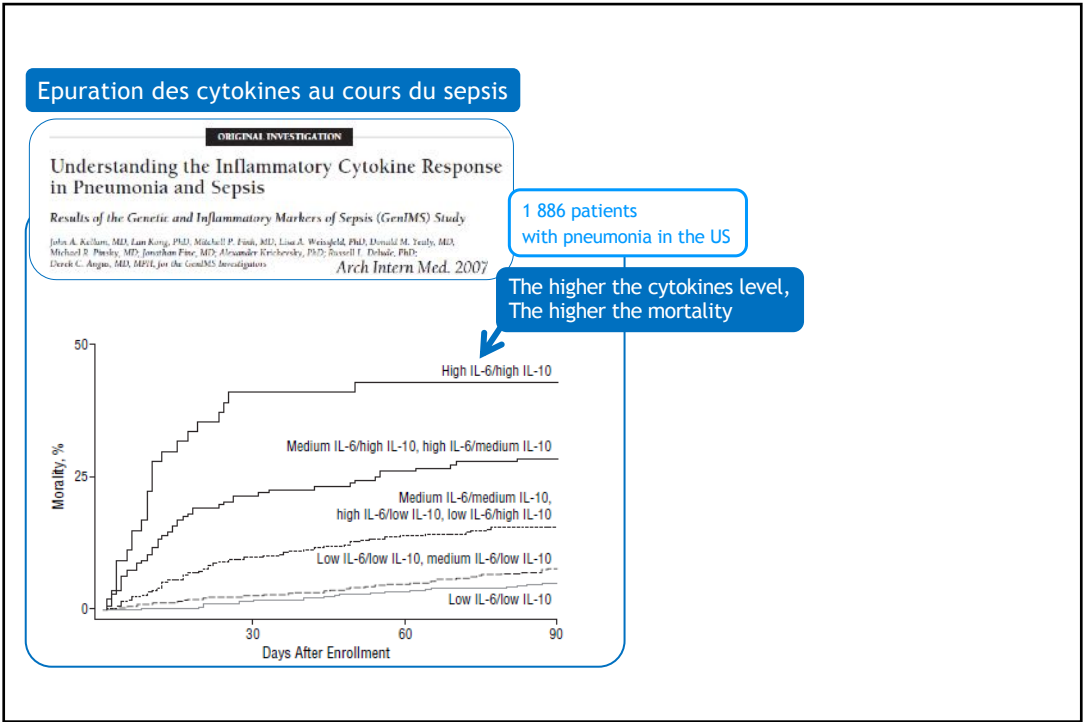




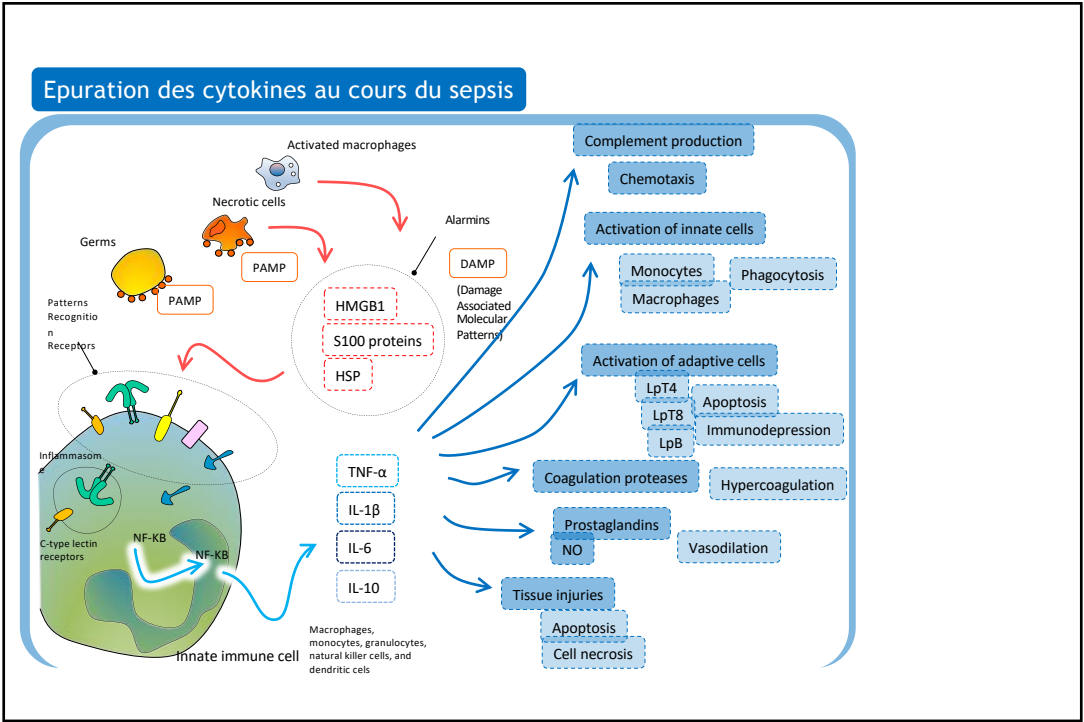
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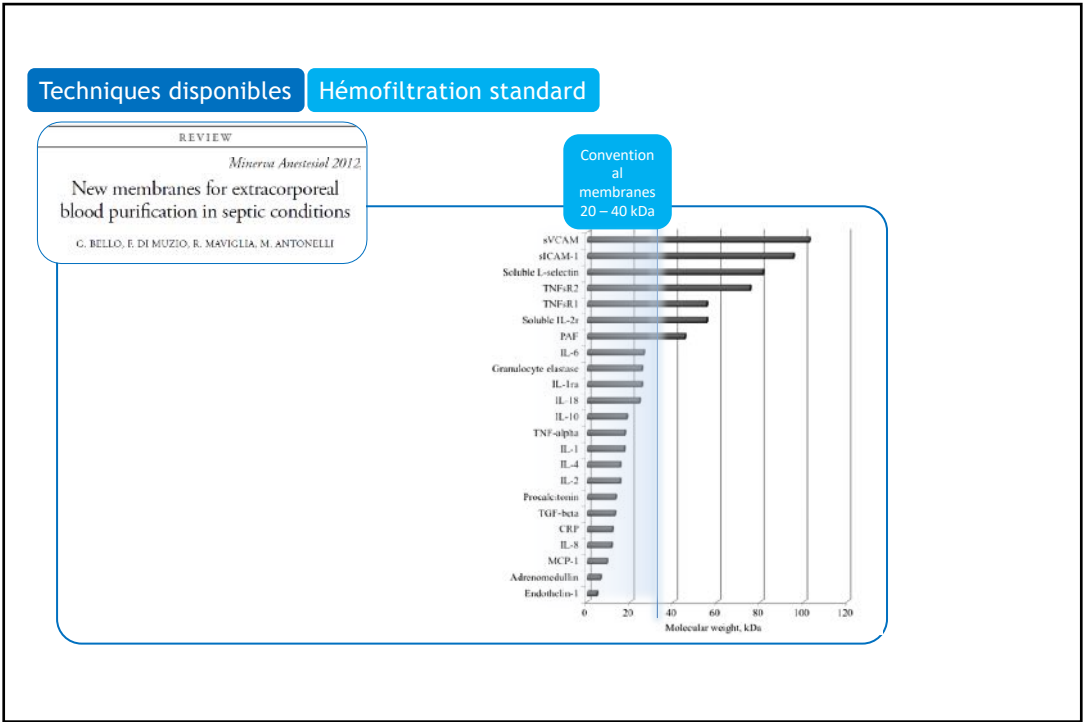
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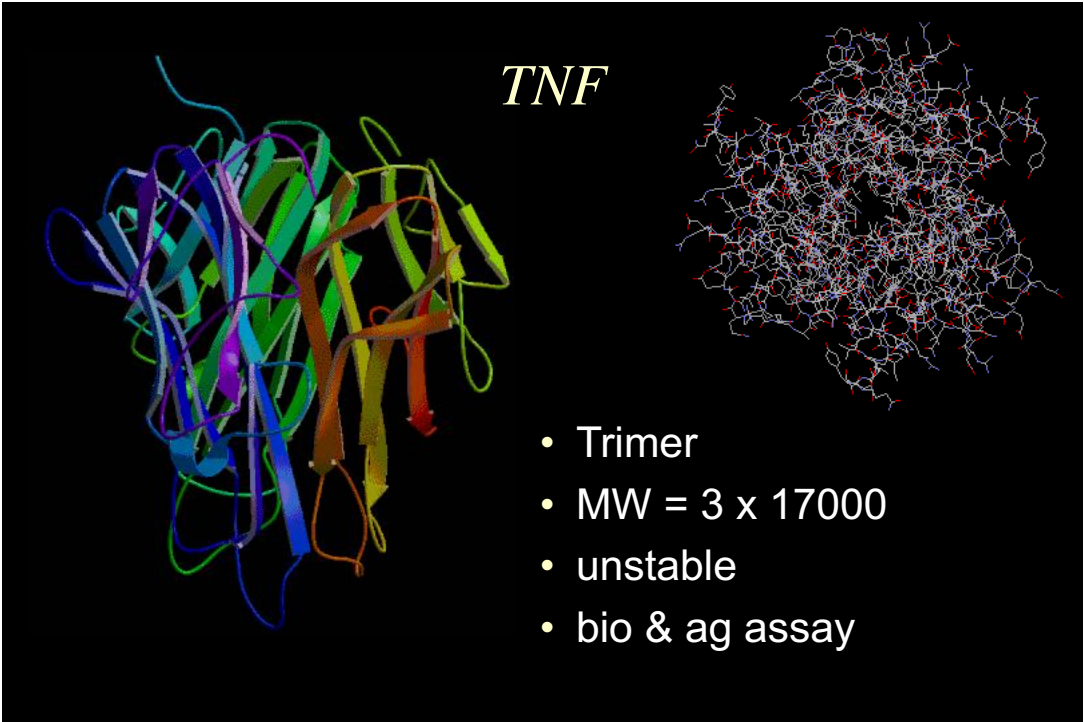
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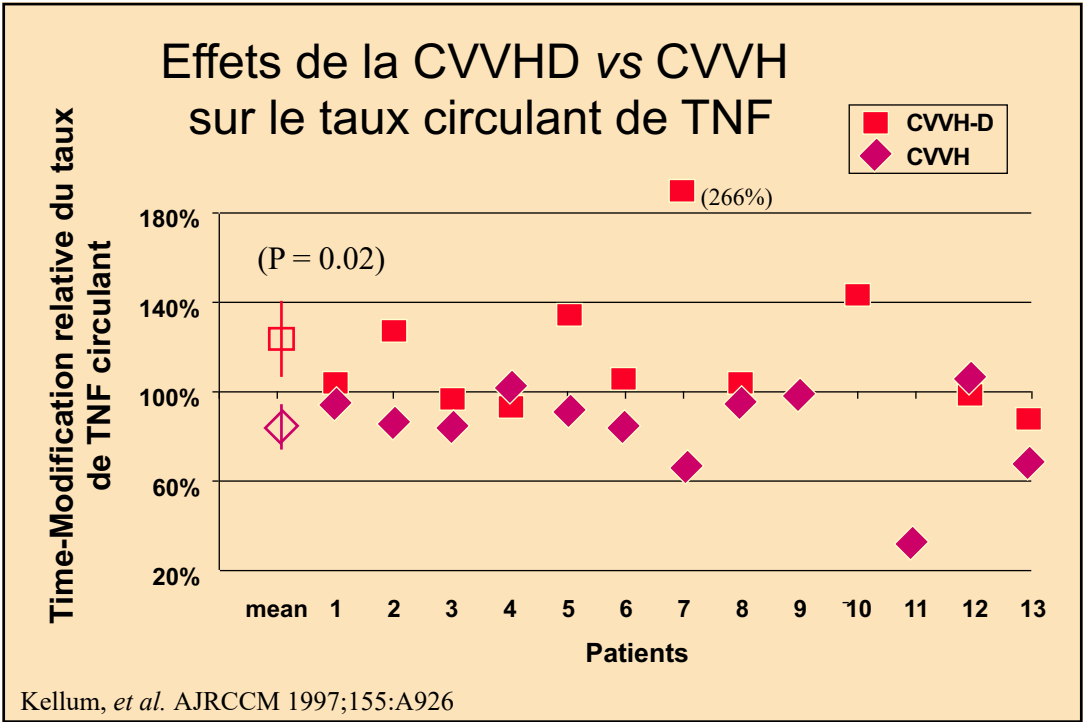
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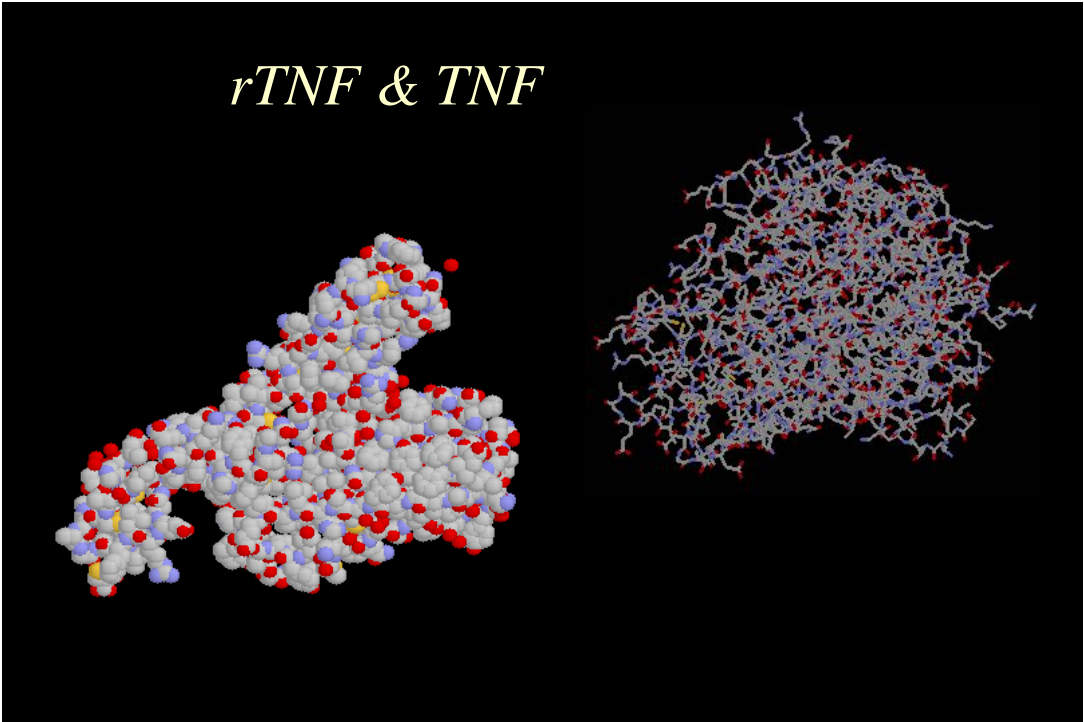
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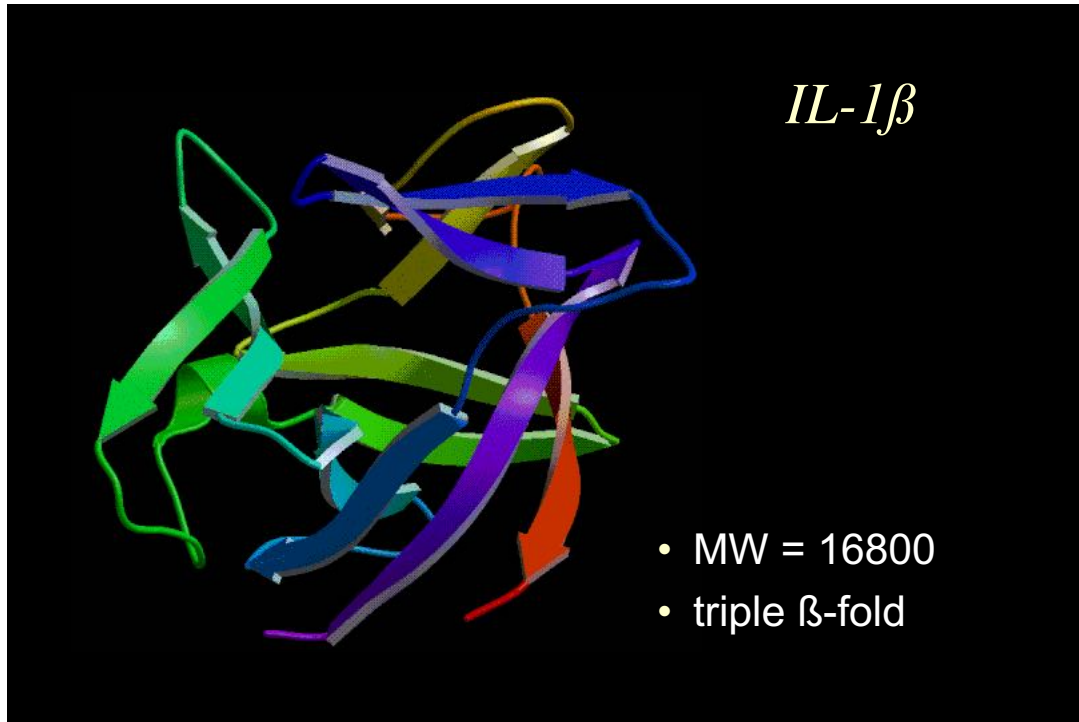
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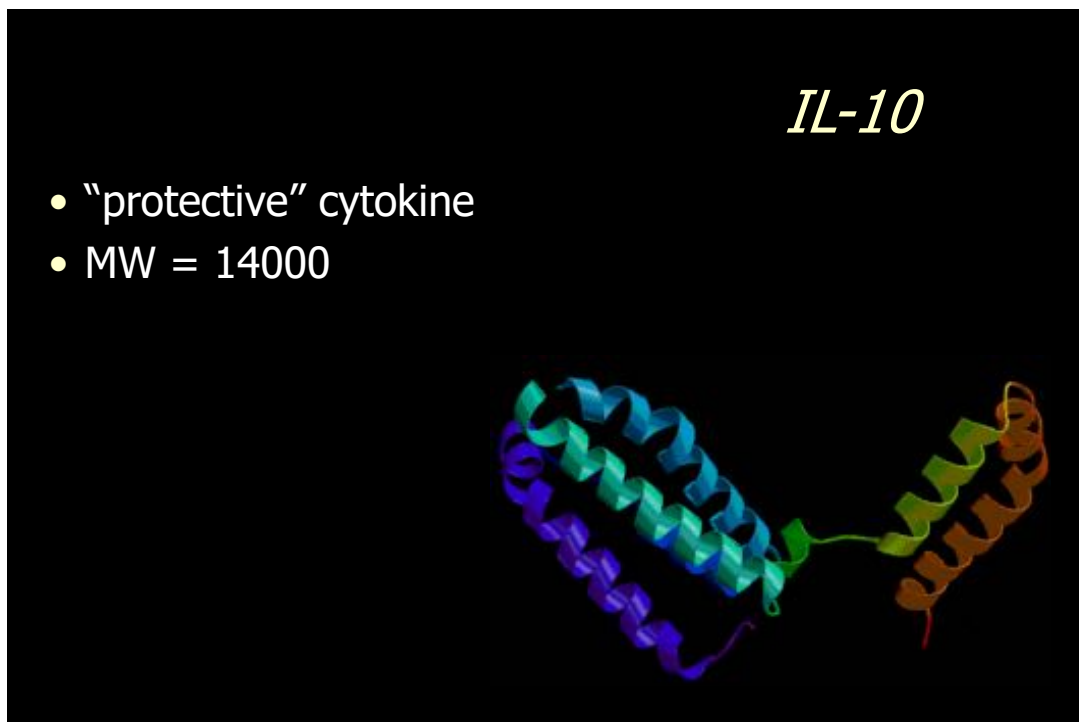
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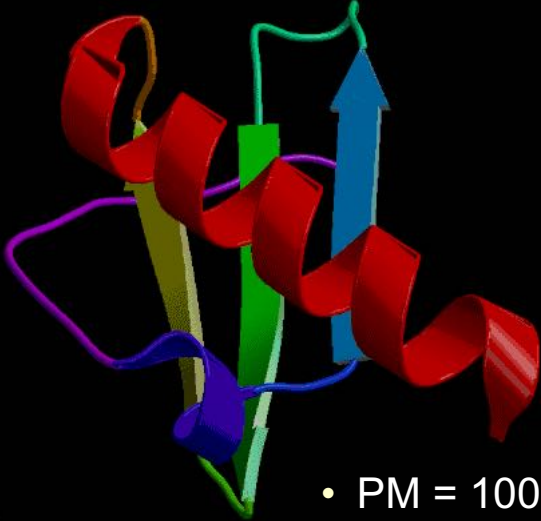
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10



11



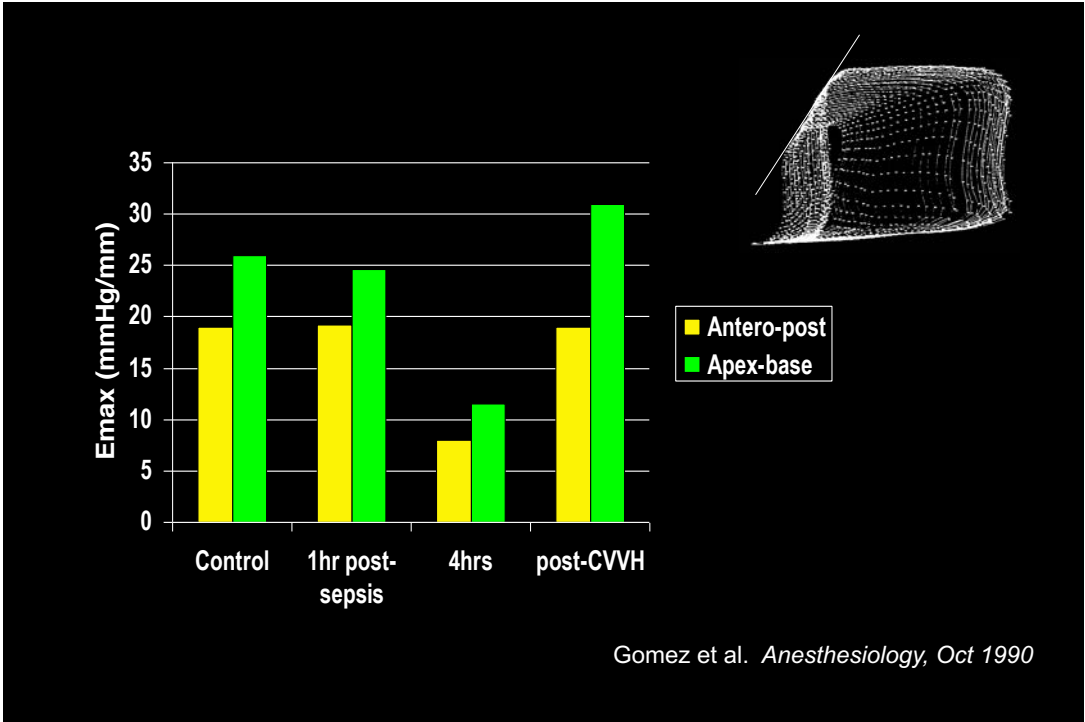
IL-8

- PM = 10000
- globulaire
- haute affinité pour les érythrocytes

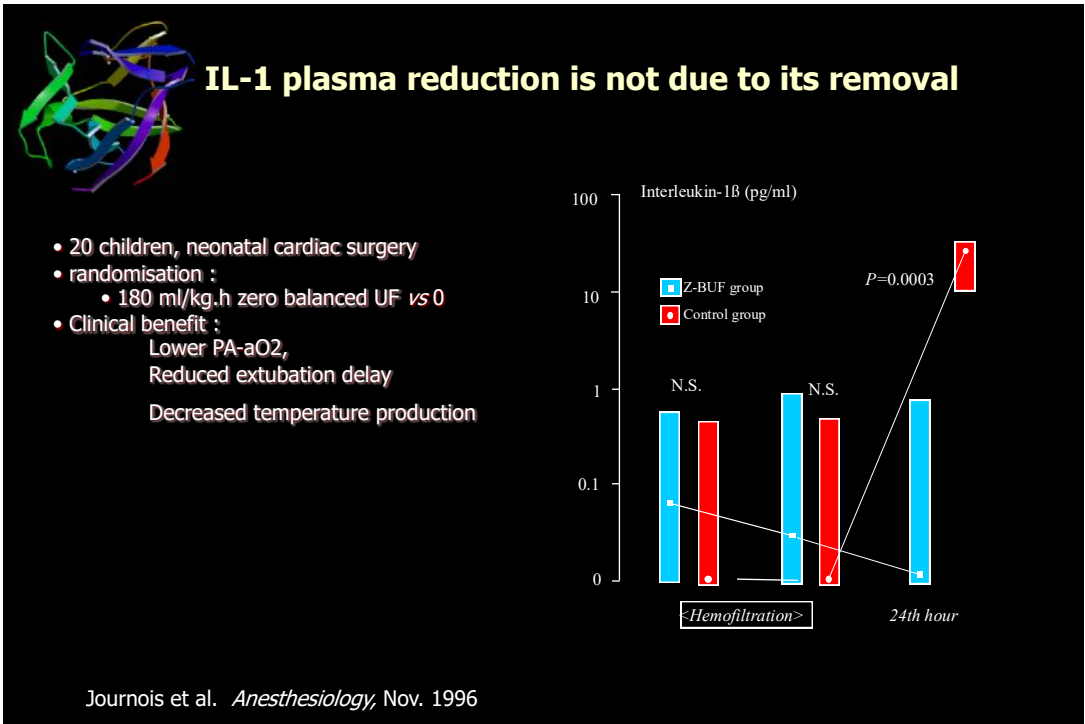
12

Removal of mediators										
Authors+ ref.	Study subject number	Diagnosis and severity	Design	CRRT Technique mb + S	UFR ml/hour	Mediators removal	Clinical effects	Delay to initiate therapy	Patient body weight	UFV/hour indexed to body size
(1)Tonnesen E et al 1993	9	Sepsis	P, Unc	CAVH, PS/S : NA	750	TNF-α, IL-1β	NA	NA	NA=75 kg	10 ml/kg/h (E)
(2) Gueugniaud PY et al 1994	6	Burns, ARF	Rs, Unc	CVVH, PAN/S : NA	NA	IL-6	↗ MAP	NA	NA	NA
(3) Wakabayashi et al 1996	6	SIRS	P, Unc	CVVH Mb&S:NA	NA	IL-6,IL-8	↗ MAP ↗ SVR	NA	NA= 75 kg = E	Na
(4) Hoffman et al 1996	16	Sepsis	P, Unc	LV-CVVH PA/S:NA	2000	C3a, C5a	↗ MAP ↗ SVR	NA	NA= 75 kg = E	26 ml/kg/h(E)
(5)Heering P et al 1997	33	Sepsis, ANF	P, C	LV-CVVH PS/S:1.35m2	1000	TNF-α, IL-6,IL-8	↗ MAP ↗ CO	NA	NA=75kg = E	13 ml/kg/h (E)
(6) Sander A et al 1997	26	SIRS	R	LV-CVVH 13:CVVH 13:IHD PAN/S:0.6m2	1000	IL-6	↔ MAP ↔ CO	NA	NA = 75 kg = E	13 ml.kg/h(E)
(7)Kellum J et al 1998	13	SIRS + ARF	R, Cros	LV-CVVH + CVVH/IHD PAN/S:0.6m2	2000	TNF-α	NA	NA	NA= 75 kg = E	26 ml/kg/h(E)
(8) De Vriese A et al 1999	15	Sepsis + ARF	P, Unc	MV-CVVH PAN/S:1m2	1500 2700	TNF-α, IL-6, IL-10,IL-1Ra, sTNFR-II	↗ in SVR	NA sTNFR-I,	NA = 75 kg	20 = E ml/kg/h (E)
(1) Tonnesen E et al. Anaesth Intens Care 21;752-758, 1993. (2) Gueugniaud PY et al. Crit Care Med 22 ;717, 1994. (3) Wakabayashi et al. Br J Surg 83 ;393-394,1996 (4) Hoffman et al. Intensive Care Med 22;1360-1367:1996. (5) Heering P et al. Intensive Care Med 23;288-296,1997. (6) Sander et al. Intensive Care Med 23;878-884,1997. (7) Kellum J et al. Crit Care Med 26,1995-2000,1998. (8) De Vriese A et al. J Am Soc Nephrol 10;846-53:1999 P =Prospective, Unc = Uncontrolled, C = controlled, R = randomized, Cross = Cross over study, ARF = Acute Renal Failure, NA = Not Available, E = Estimated, RS = Retrospective										

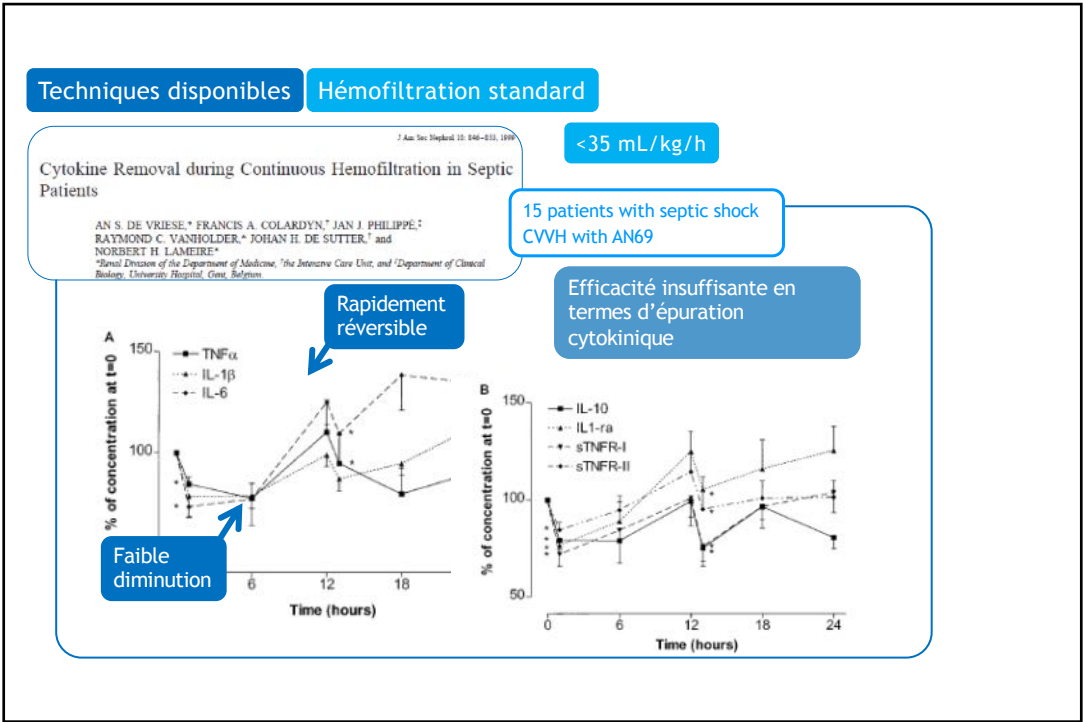
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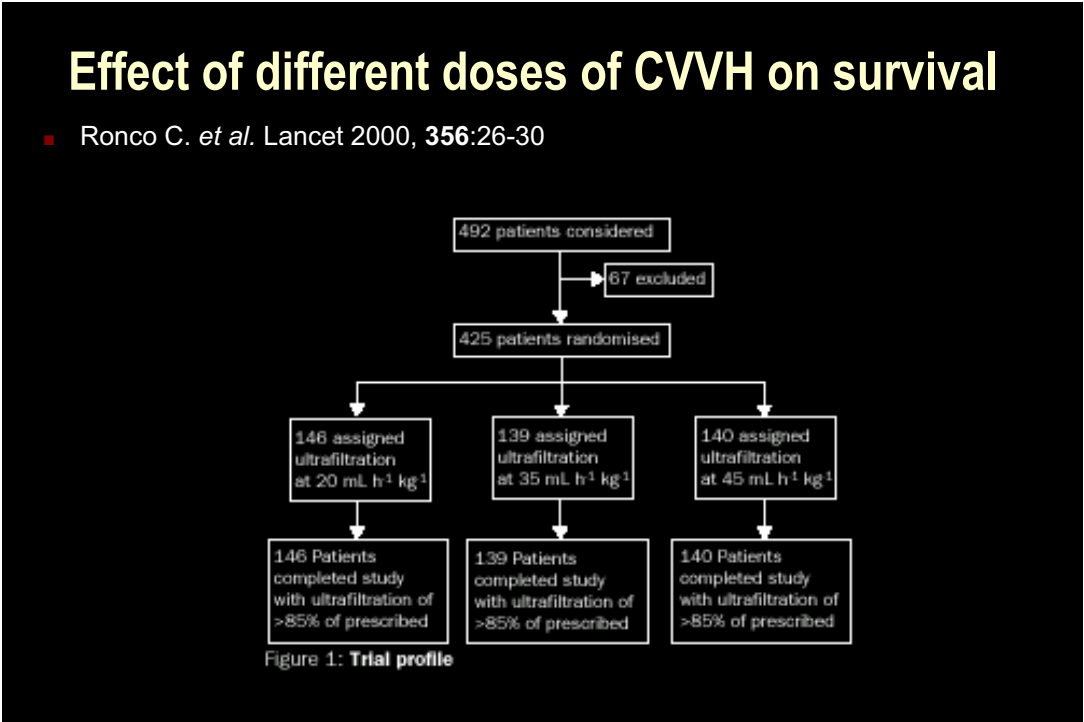
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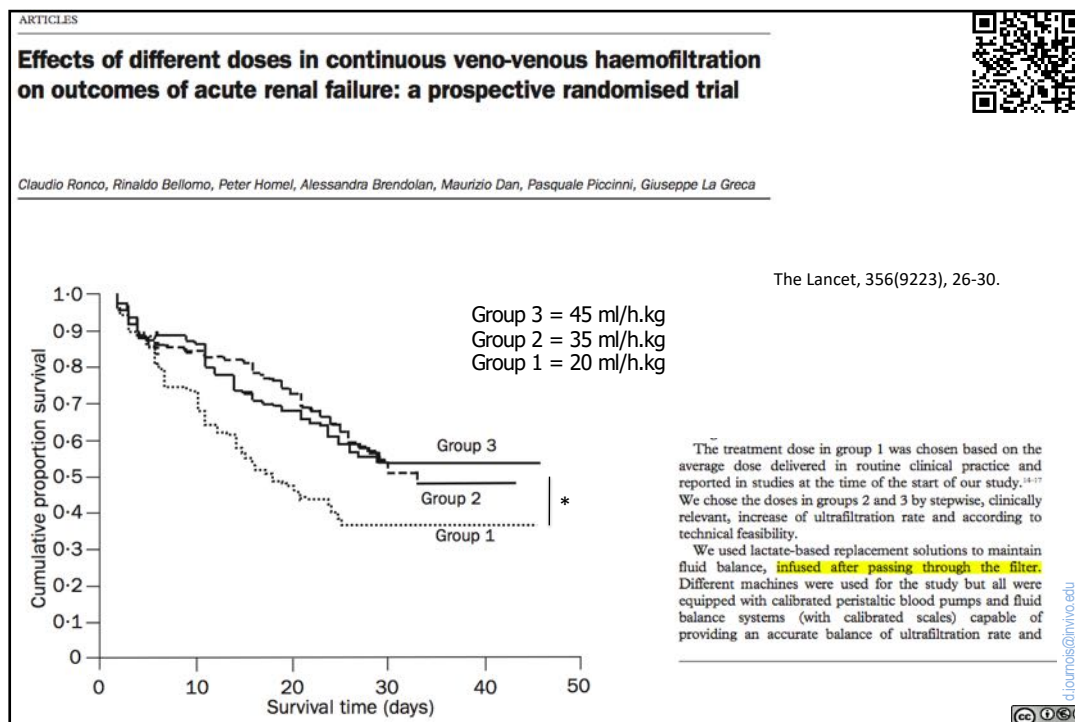
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18



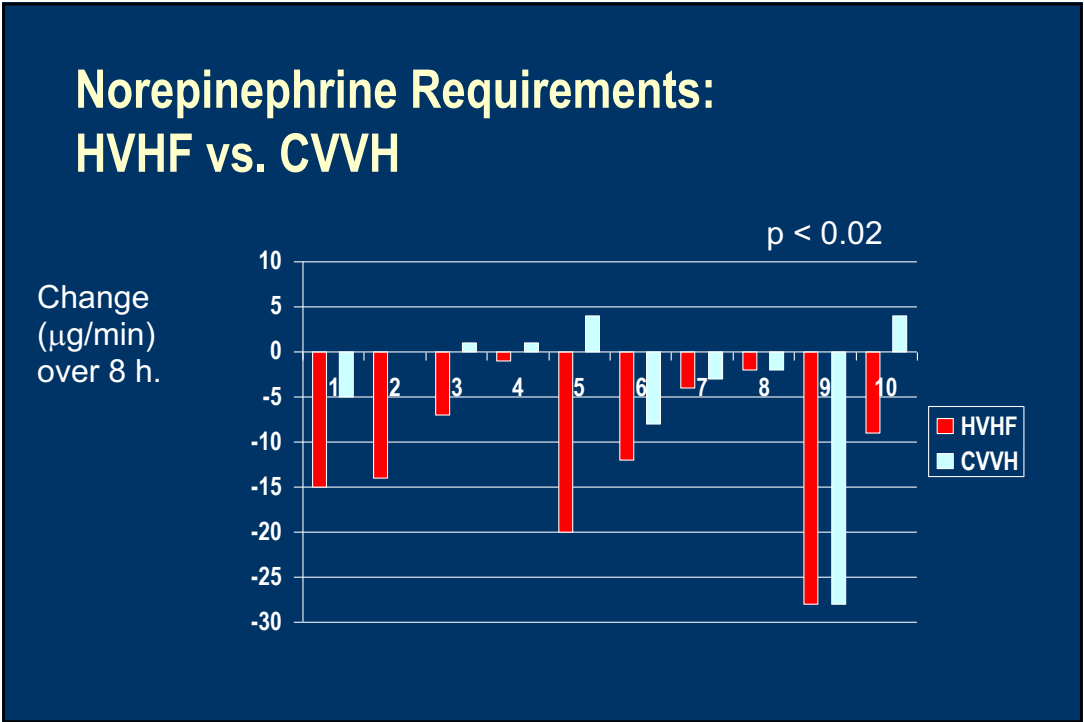
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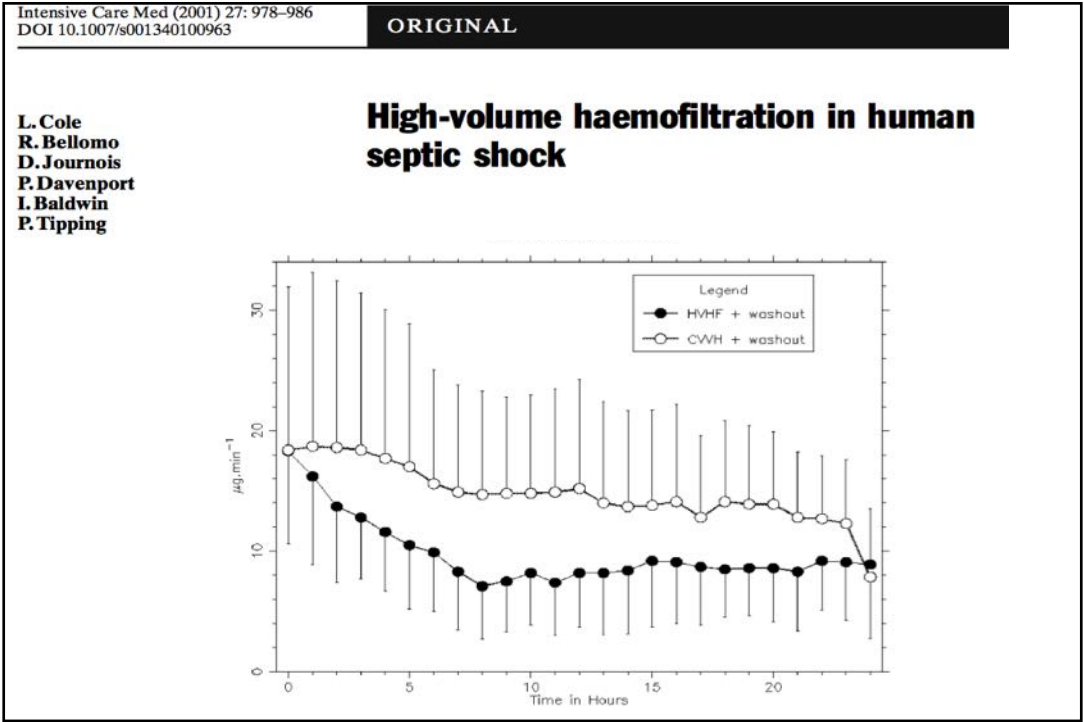
hv-CVVH vs. CVVH

- Ten patients with septic shock and ARF
- Noradrenaline dependent
- Randomized to 8 hrs of hv-CVVH (6L/hr) or CVVH (1L/hr) in random order
- Physiological outcome: hemodynamic response
- Biological outcome: Complement and cytokines

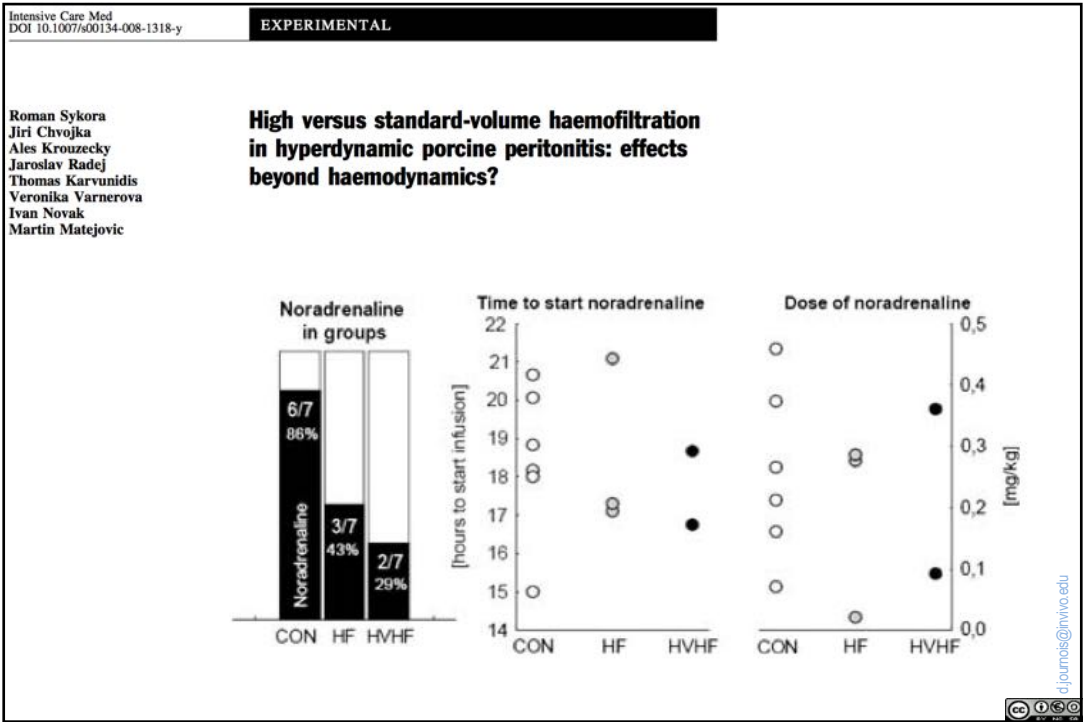
Bellomo et al. *Int Care Med* 2001



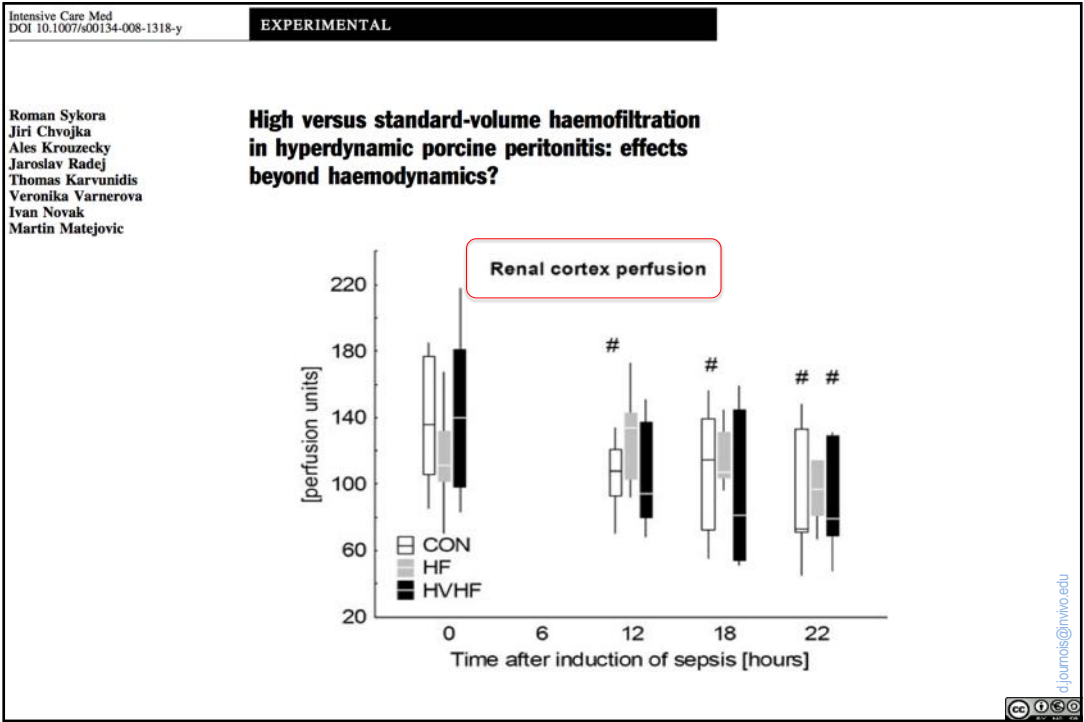
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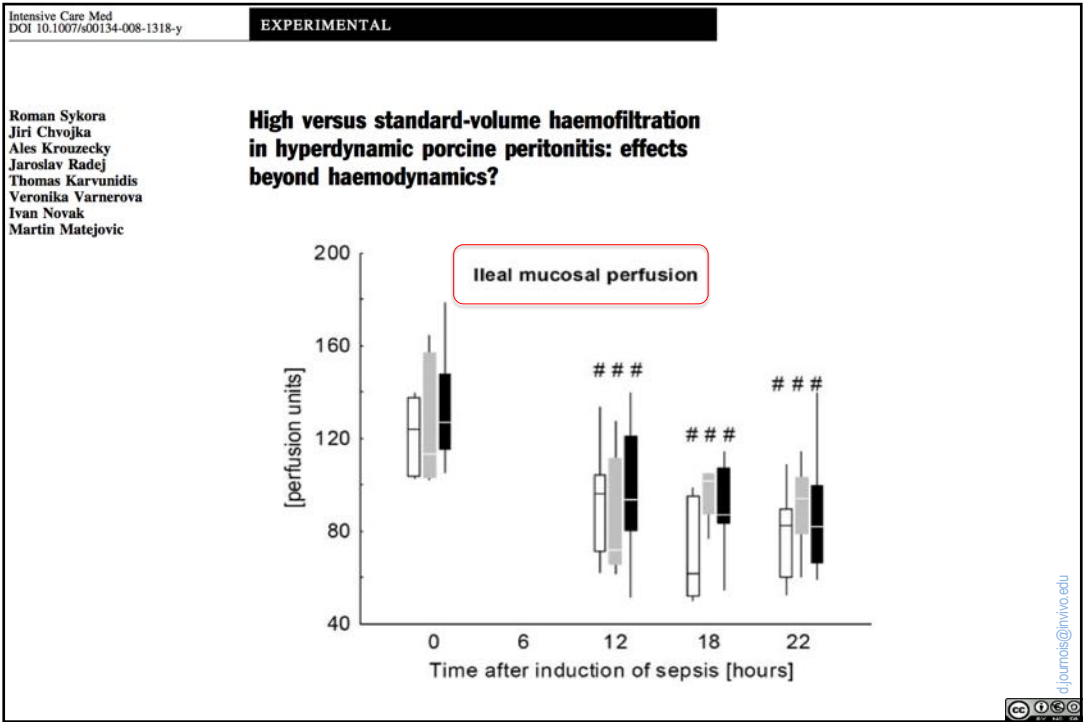
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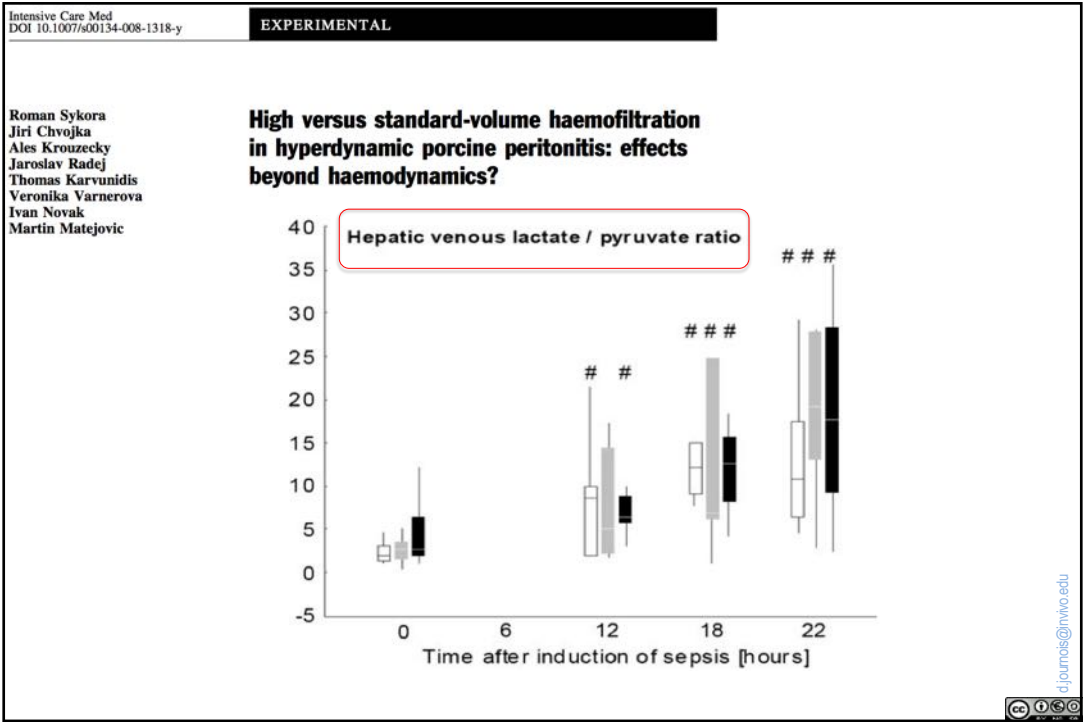
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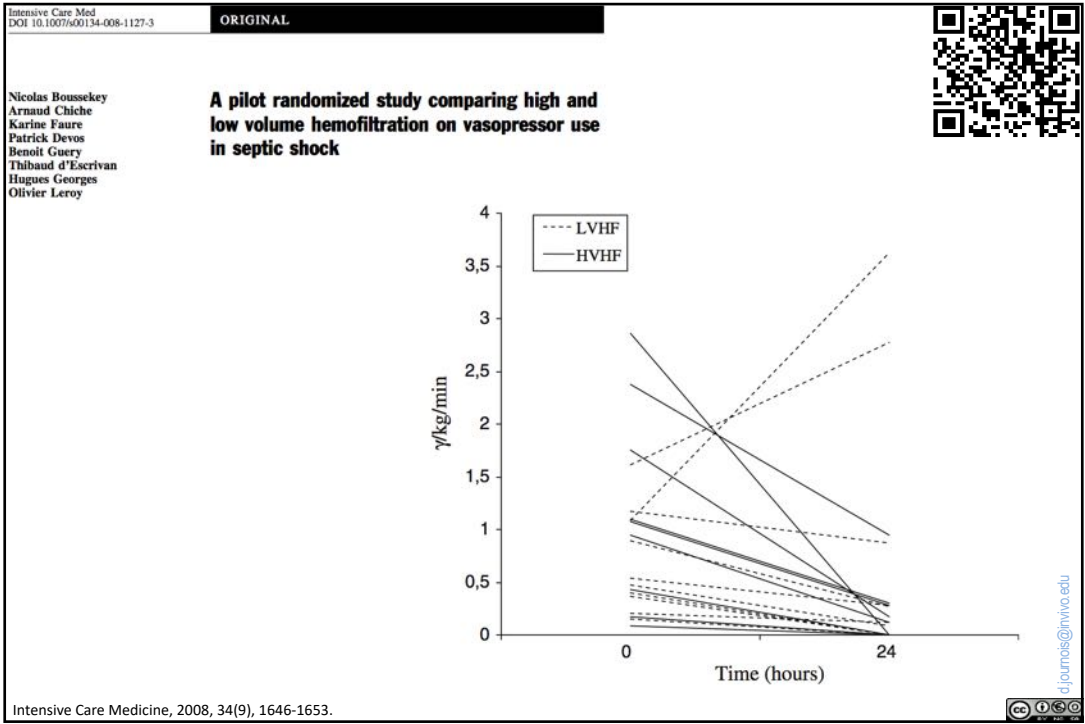
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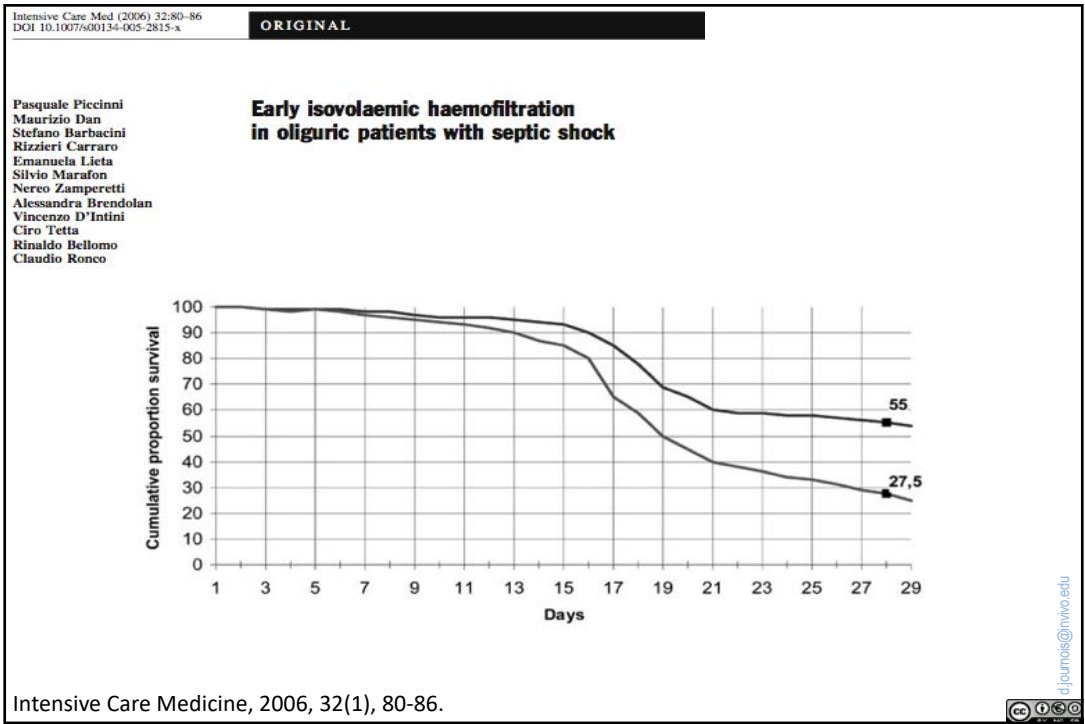
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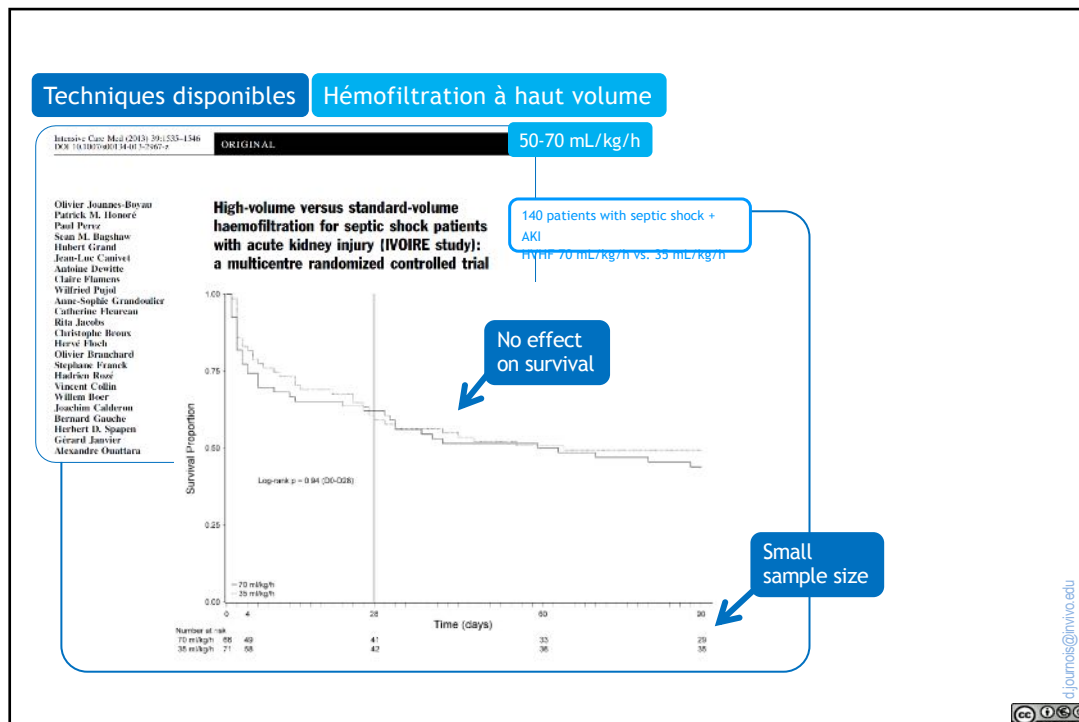
31



32



33



34

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High-Volume Hemofiltration After Out-of-Hospital Cardiac Arrest

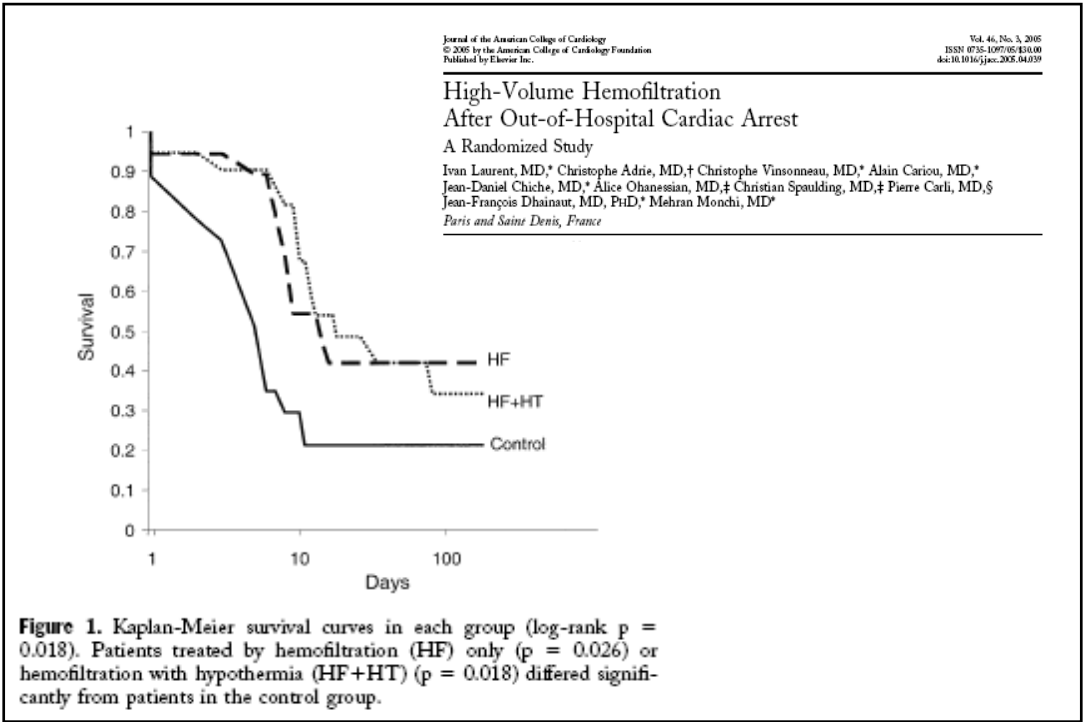
A Randomized Study

Ivan Laurent, MD,* Christophe Adrie, MD,† Christophe Vinsonneau, MD,* Alain Cariou, MD,*
Jean-Daniel Chiche, MD,* Alice Ohanessian, MD,‡ Christian Spaulding, MD,‡ Pierre Carli, MD,§
Jean-François Dhainaut, MD, PhD,* Mehran Monchi, MD*

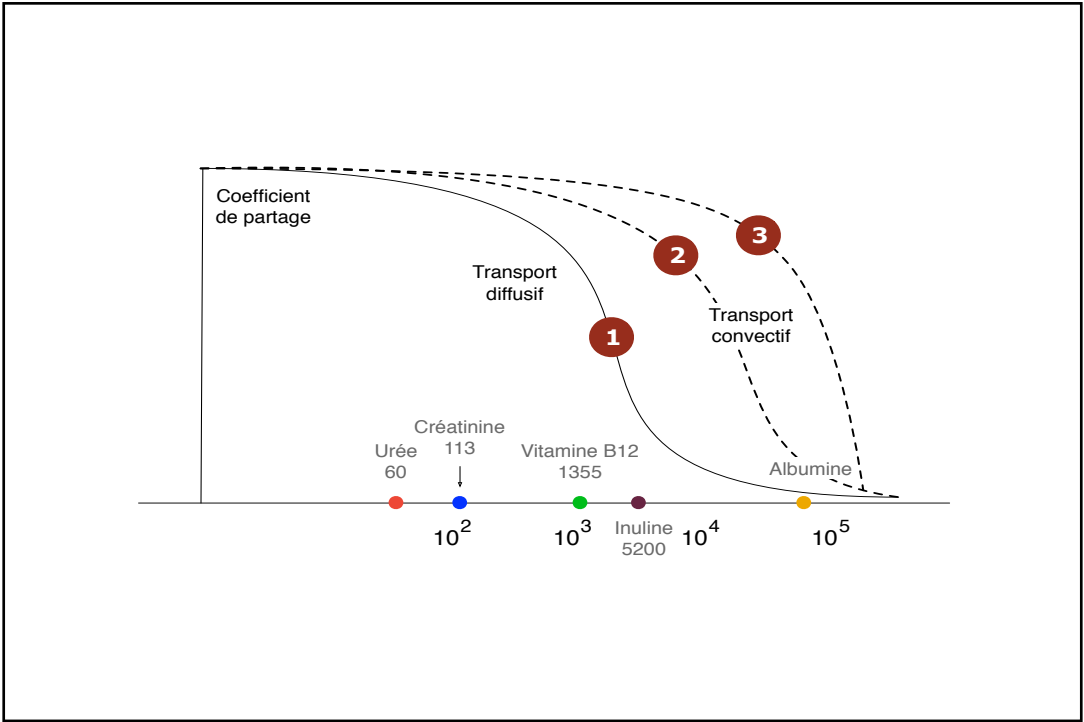
Paris and Saint Denis, France

- Etude prospective, randomisée.
- 3 groupes :
 - ◆ HF (200 ml/kg/H)
 - ◆ HF + hypothermie de 32° pendant 24h
 - ◆ contrôle

35



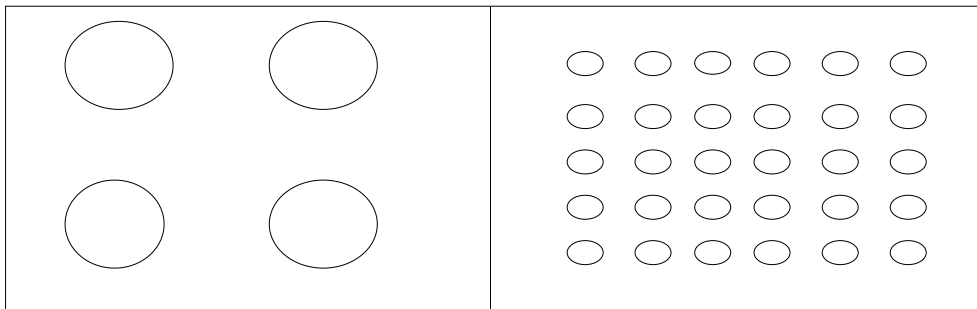
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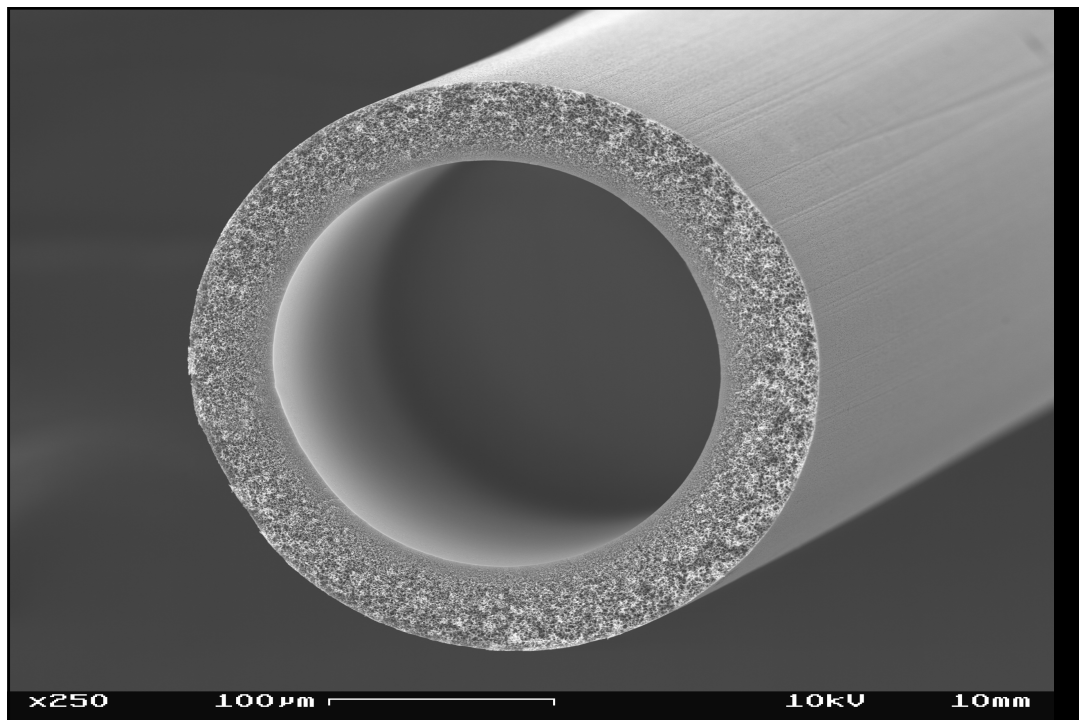
37

Haut point de coupure $\neq$ haute perméabilité !

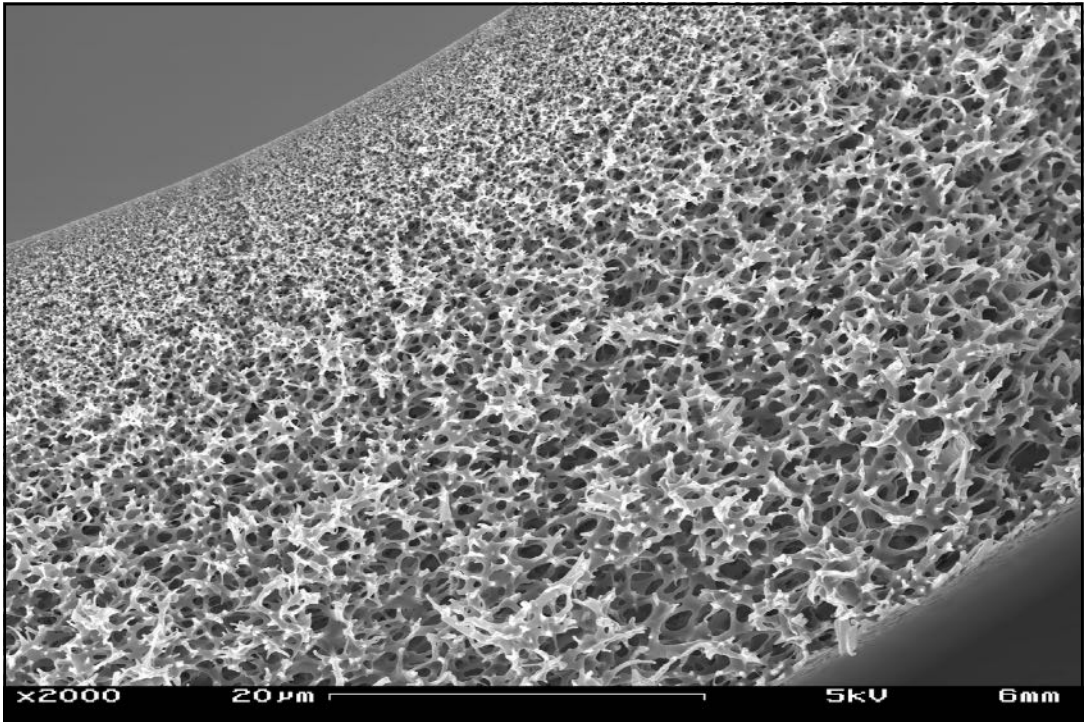
- Perméabilité hydraulique membranaire définie par le coefficient d'ultrafiltration
- K_{UF} en mL / h.mmHg.m² de surface membranaire
- Proportionnelle au nombre de pores par unité de surface et au rayon moyen des pores à la puissance 4
- Perméabilité hydraulique $\neq$ perméabilité moléculaire



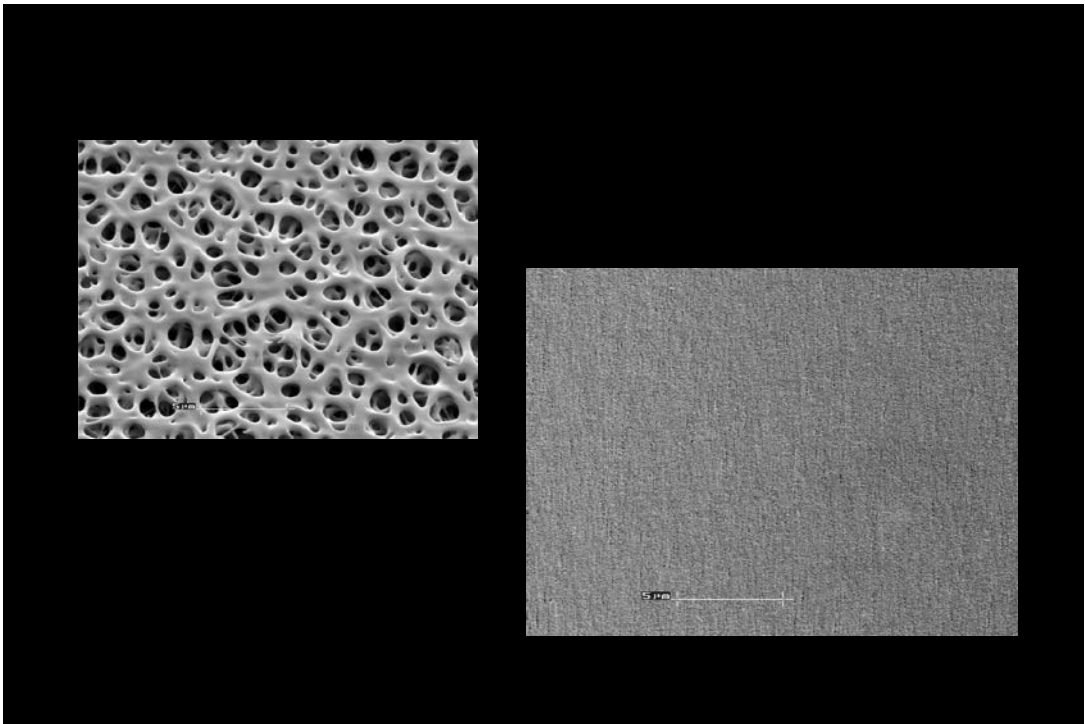
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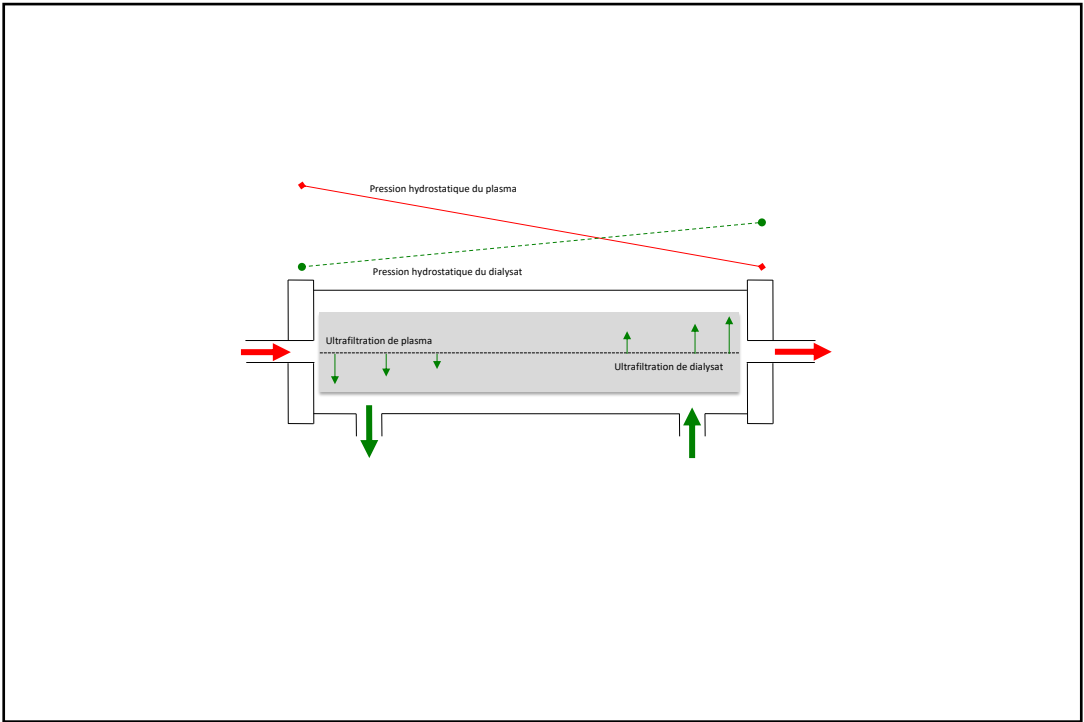
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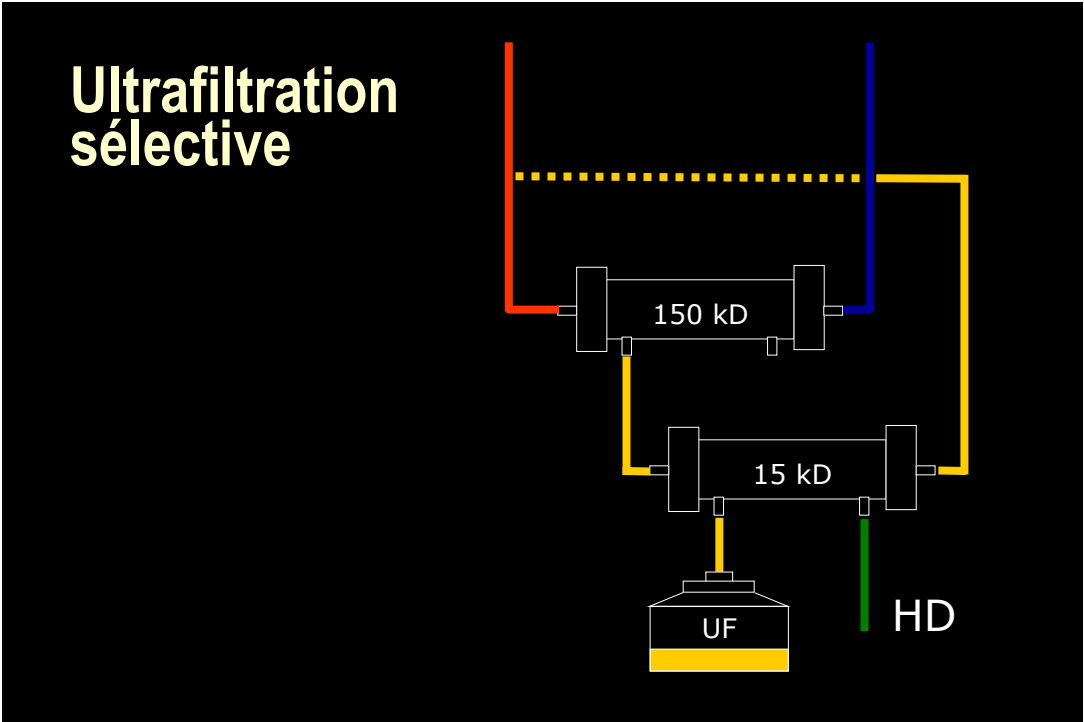
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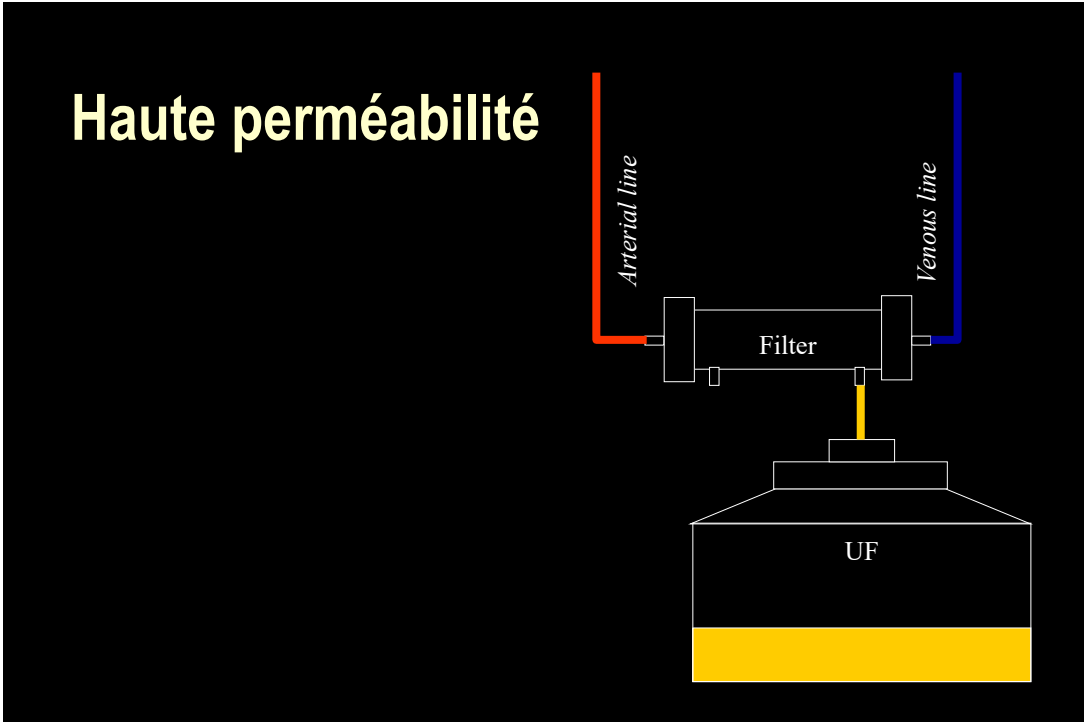
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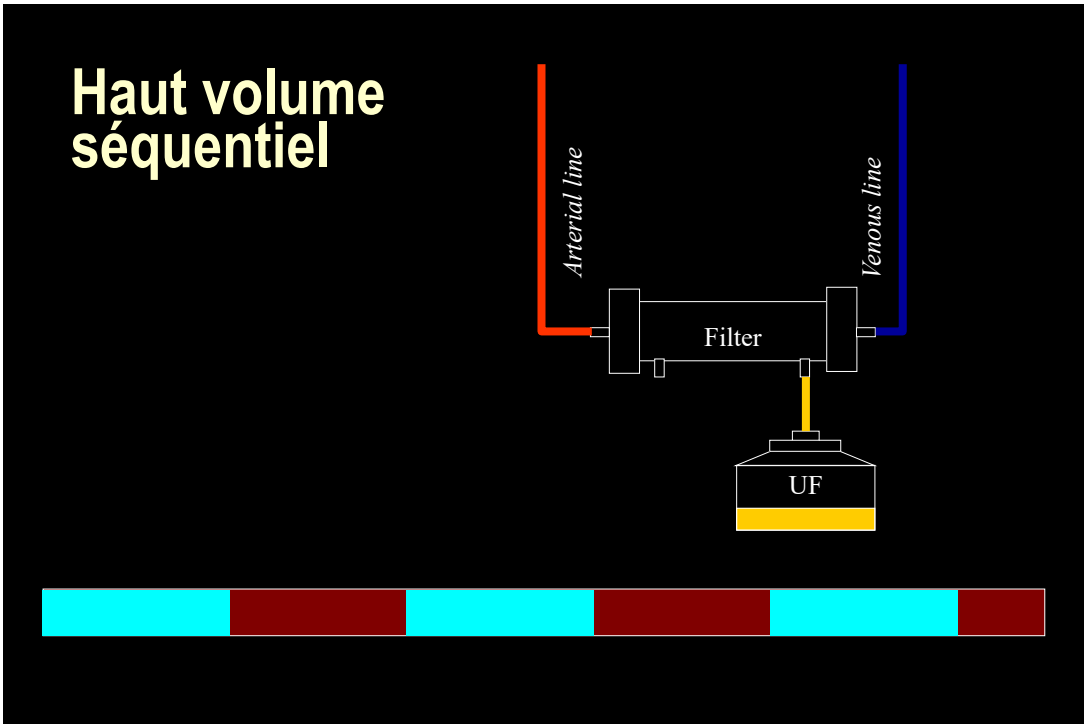
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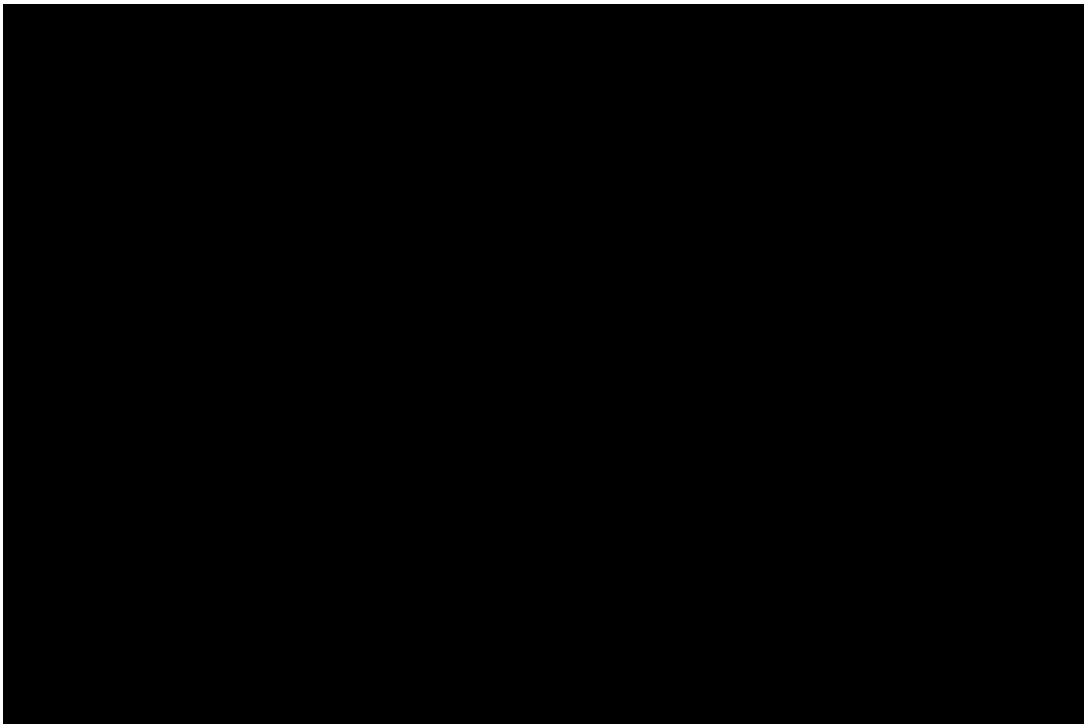
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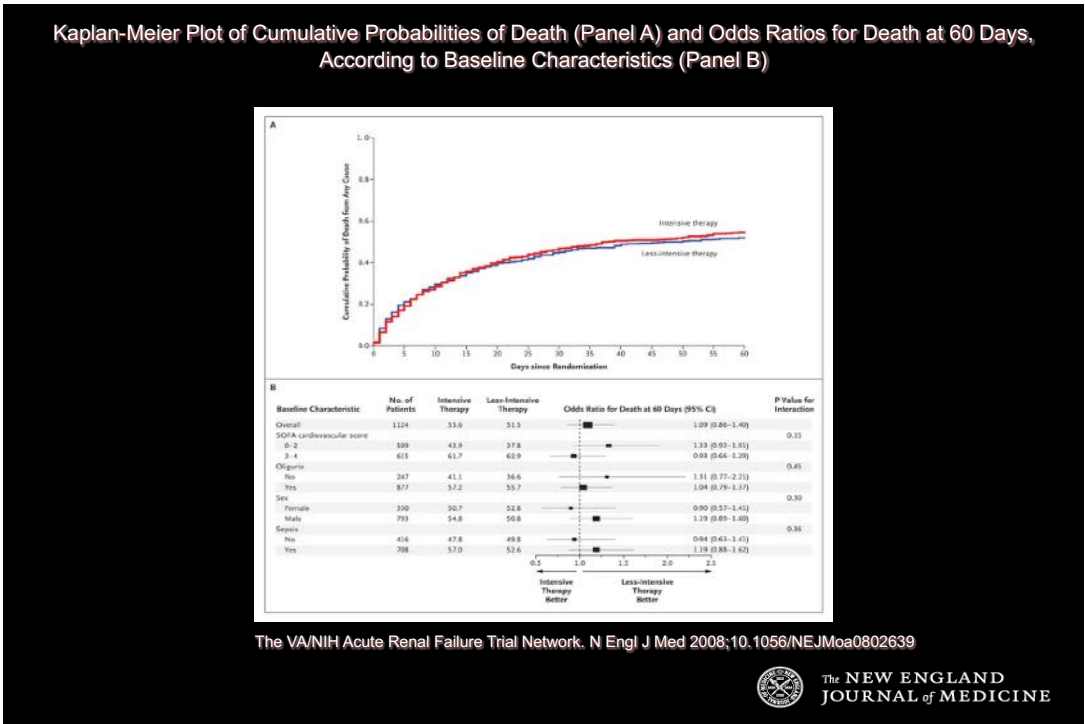
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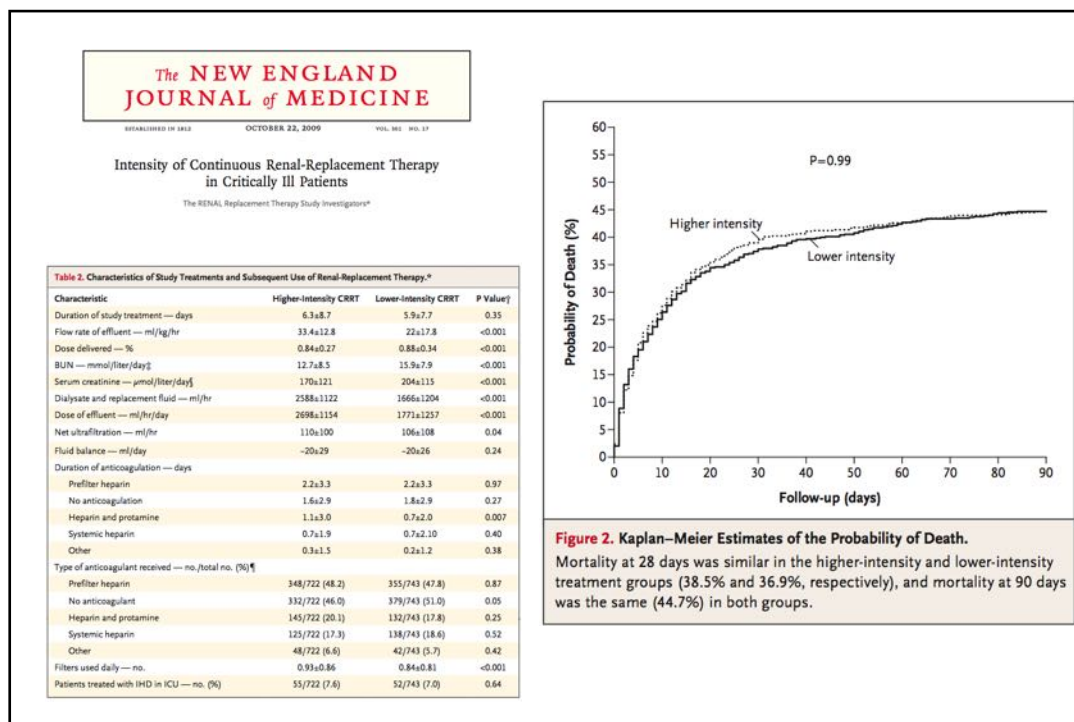
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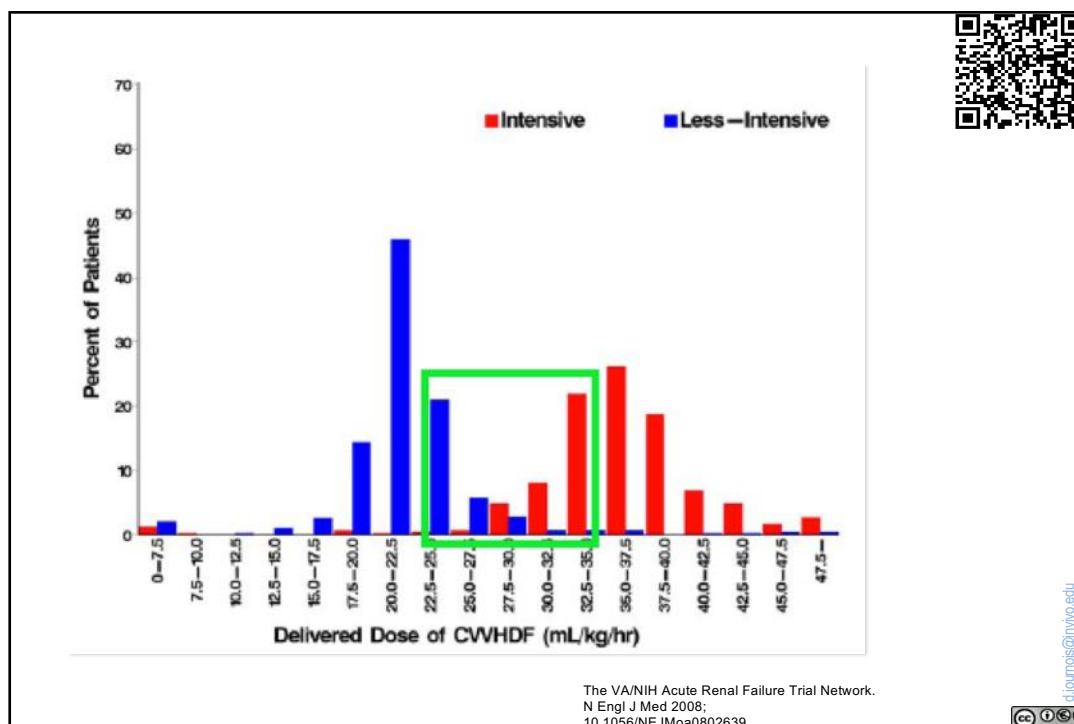
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47



48



49

50