24 TH ESPEN Congress 31st August to 4th September 2002

ESPEN Congress Glasgow 2002

Pharmacists' Educational Session: Debate

Pro

Dr. Claude Pichard

Can « ready - to - use products » optimize TPN ?

Multi-chamber bag - 3-compartment bag - parenteral nutrition

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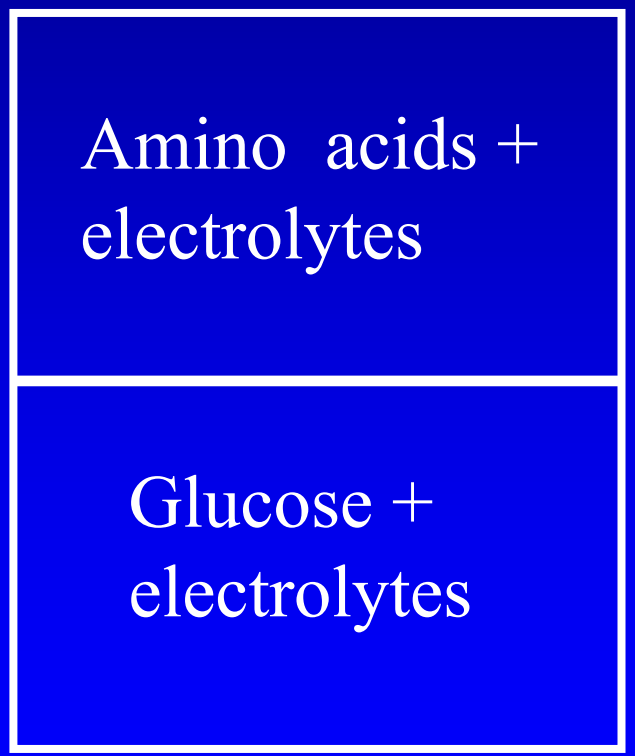
STUDY 1 : Multi - bottles *vs* 2 - Compartments bags + lipids



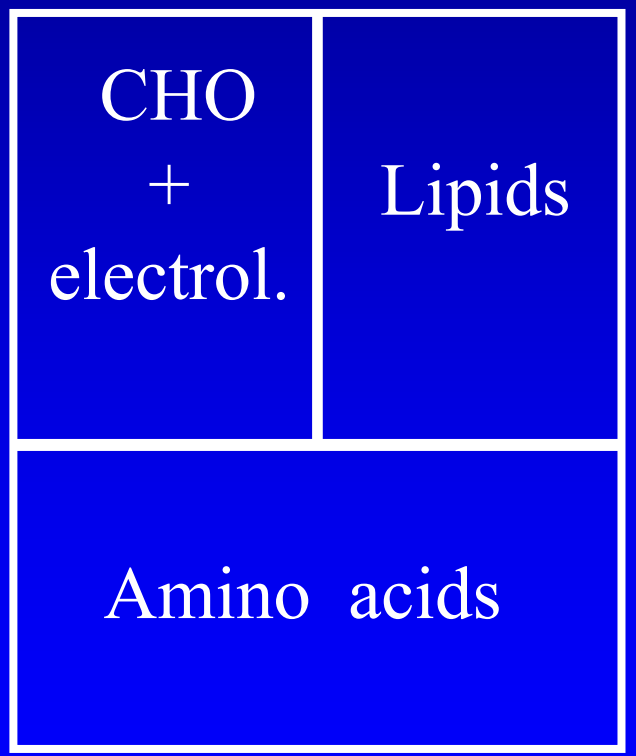
+ lipids (Pharmacy)

- 5600 TPN days
- products cost : - 17 %
- disposables cost: - 80 %
- nurse workload: - 66 %

or 600 hrs/ yr

Tristan - Udriot M. et al.
Méd Hyg 51, 1668-1171, 1993.

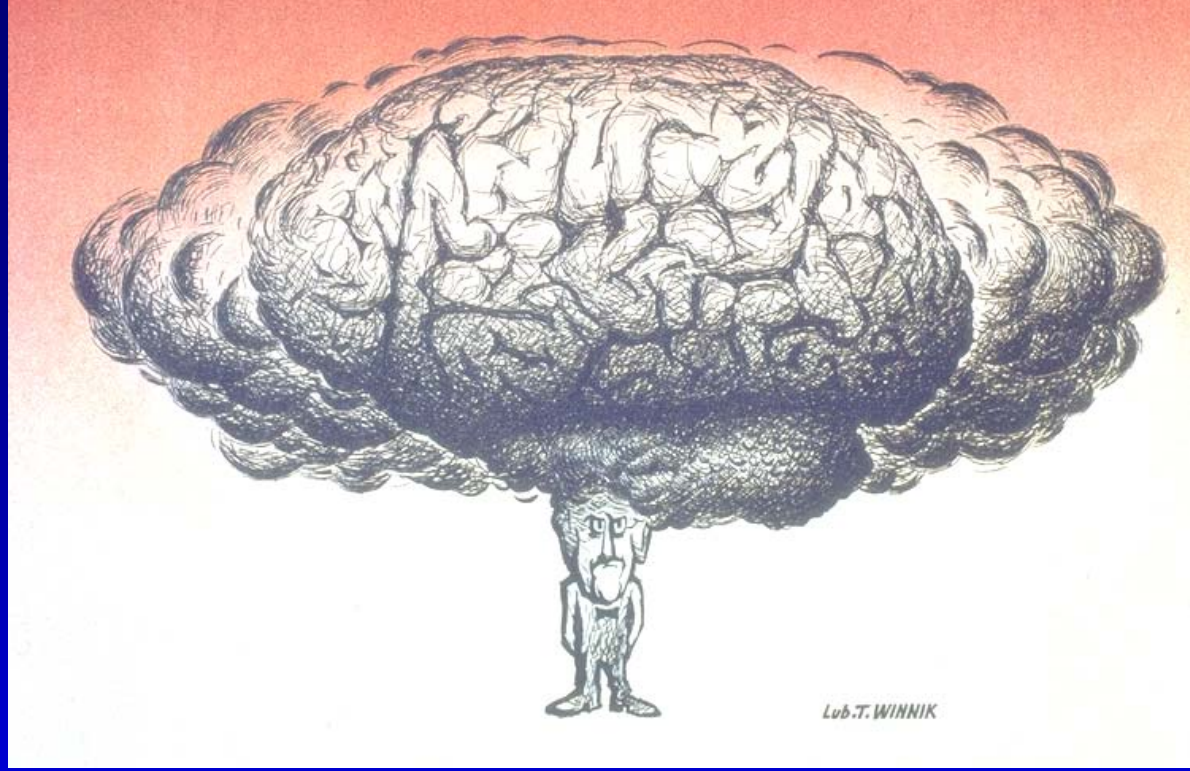
STUDY 2 : Multi - bottles *vs* 3 - Compartment bags (3CB's)



- 5100 TPN days
- 96 % of nurses / doctors' prefered 3CB's.
- Major advantages: easy / fast / available on wards

Velickovich G et al. Méd Hyg 51, 1976-1980, 1995.

Pharmacy



- ≈ 40 components
- storage
- prescription reading / transcription
- preparation / stability testing
- transport

→ COMPATIBILITY

RESEARCH & HYPOTHESIS

The more products, manipulations & monitoring procedures you have,

- higher are the risks
- higher is the workload
- higher is the cost

⇒ Multi - compartment bags should be a safe, convenient & cost - saving strategy

Economic investigation of the use of 3-compartment TPN bag : A Prospective randomized unblinded controlled study

Pichard et al. Clin Nutr 2000: 19(4):245-251

Economic investigation of the use of 3-compartment TPN bag

Prospective randomized unblinded controlled study. *Pichard et al. Clin Nutr 2000: 19(4):245-251*

	Separate bottles	Hospital-compounded	3-compartment
Manpower			
Physician			
Nurses			
Pharmacist			
Pharmacy assistant			
total manpower	22 ± 5 CHF *226 %*	15 ± 1 CHF *147 %*	10 ± 1 CHF *100 %*
Material			
Solutions			
Overhead			
Global application cost	119 ± 21 CHF *120 %*	148 ± 1 CHF *150 %*	99 ± 5 CHF *100 %*

X ± SD; % related to global cost. ANOVA: all $p \leq 0.01$

Prospective survey of TPN in France, Belgium & Switzerland

Maisonneuve N et al. Clin Nutr 2002, 21: 42

Type of PN in %	Switzerland	France	Belgium
Adults: ST vs. TM	87 / 45	80 / 15	88 / 42
Children: ST vs. TM	12 / 53	20 / 49	9 / 43
ST formula :			
2 vs 3-compart. bags	39 / 35	3 / 21	7 / 8
1-compart. bags vs glass bottles	13 / 14	13 / 64	58 /
NST	46	32	44

Can « ready - to - use products » optimize TPN ?

YES

- Safety
- Ergonomics
- Economy