

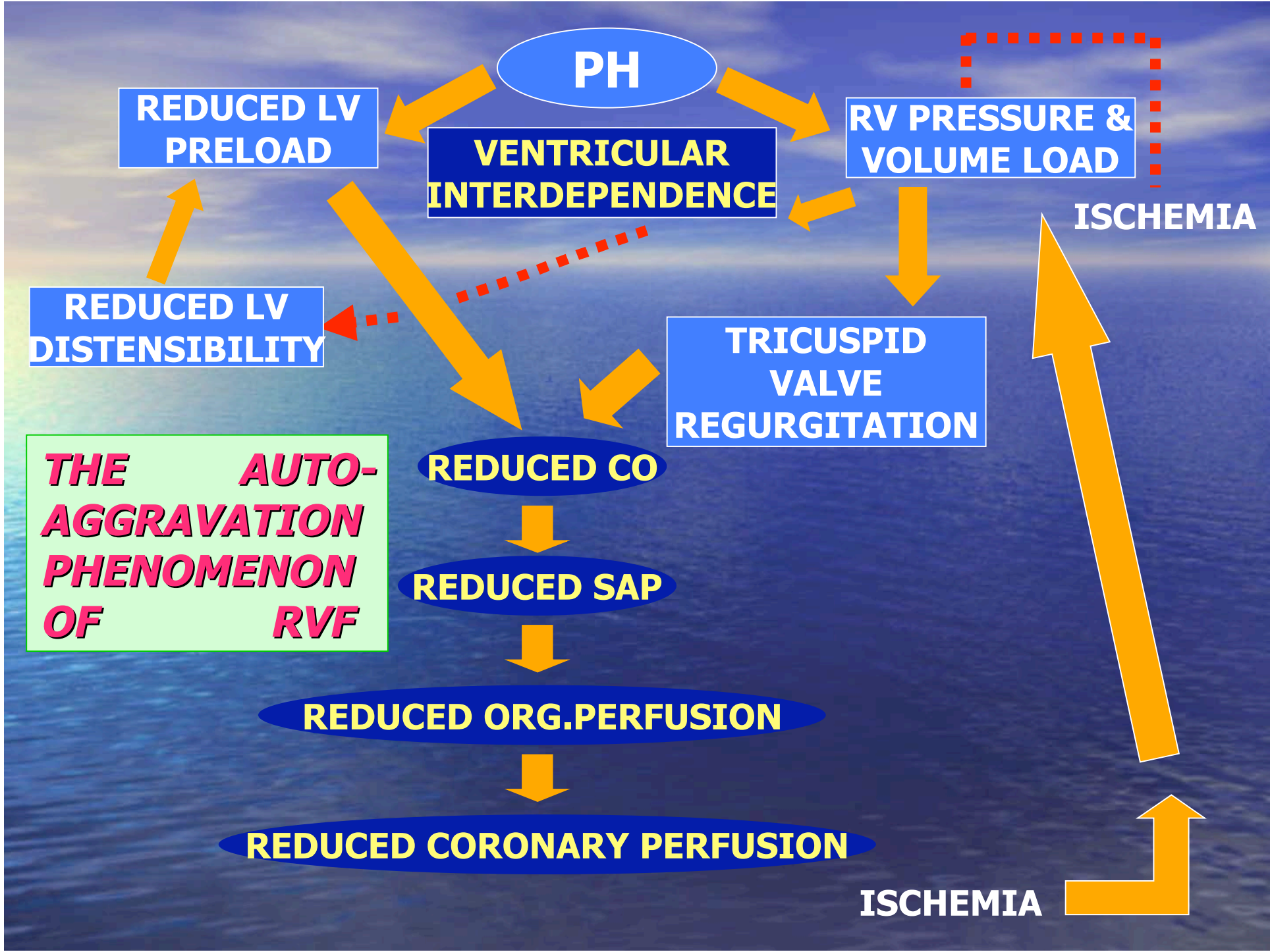
**THE COMMONEST TRIGGER PHENOMENA OF PH IN THE ICU SETTING ARE INCREASED LEFT ATRIAL PRESSURE, ACUTE VASCULAR OBSTRUCTION, AND WORSENING [ PRE-EXISTING ] HYPOXEMIA**



**CONSEQUENTLY, TREATMENTS SHOULD PRIMARILY BE DIRECTED AT THE UNDERLYING CARDIAC, VASCULAR OR RESPIRATORY DISEASE**



**HOWEVER, MORE THAN OCCASIONALLY, WE ARE DEALING WITH PATIENTS HAVING PRE-EXISTENT CHRONIC PATHOLOGICAL LUNG AND PULMONARY VASCULAR CONDITIONS WHO NEED INTENSIVE THERAPEUTIC SUPPORT DURING WORSENING FOLLOWING SUPERIMPOSED RESPIRATORY OR C-V DISEASE**



## WHICH PROBLEMS DO WE NEED TO FACE UP IN ADULT ICU PATIENTS WITH RVF ?

- PULMONARY VENOUS HYPERTENSION ; INCREASED PULMONARY BLOOD FLOW
- **PULMONARY EMBOLISM**
- ACUTE EXACERBATION OF COPD
- **ALI/ARDS [ SEPSIS–INDUCED RVF ]**
- **RVF ASSOCIATED WITH END STAGE LUNG DISEASE**
- **RVF ASSOCIATED WITH END STAGE PULMONARY VASCULAR DISEASE**
- OSAS AND THE MORBID OBESE PATIENT [?]

# PULMONARY HYPERTENSION AND RIGHT VENTRICULAR FAILURE IN THE ICU: GENERAL THERAPEUTIC HINTS

- DO YOUR BEST WITH OXYGEN [ breathing of  $F_{I}O_2 = 1$  may worsen IP-shunt in ALI/ARDS-pts with low PEEP levels;  
*Santos C et al. AJRCCM 2000; 161: 26-31 ]*
- IMPROVEMENT OF LV FILLING [ VOLUME ]
- ↗ OF RV AND LV CONTRACTILE STRENGTH [ INOTROPES ]
- MAINTENANCE OF AORTIC BLOOD PRESSURE [ VASOPRESSORS ]
- PULMONARY VASODILATORS

# PULMONARY VASODILATATION IN THE ICU SETTING

- **Inhaled pulmonary vasodilators**
  - Preferred because of selective pulmonary vasodilation
  - Drugs: nitric oxide, PGI<sub>2</sub> and Analogues; Sildenafil?
- **Oral pulmonary vasodilators ?**
  - First line: sildenafil 12.5 - 50 mg tid
  - Medium/long-term rescue: bosentan 62.5-125 mg bid
  - Combined therapy: sildenafil & inhaled iloprost