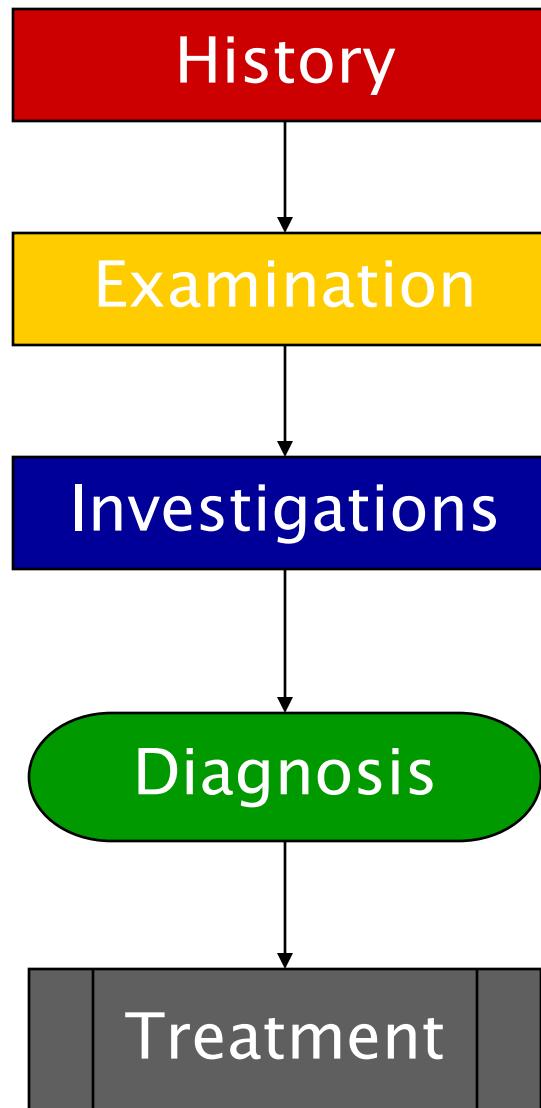


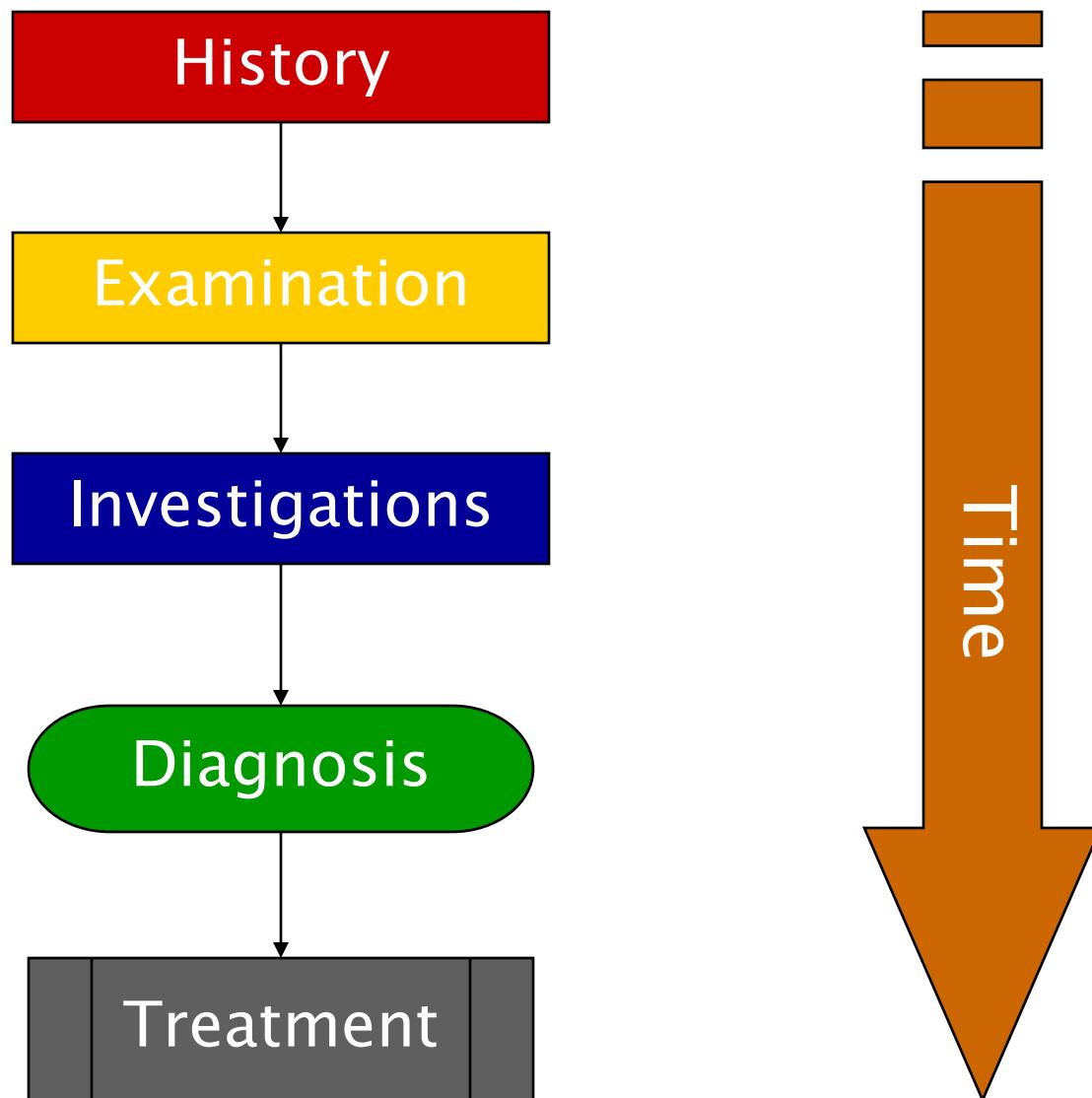


# Assessment of the seriously ill

Continuing development of BASIC is supported by an unrestricted educational grant from

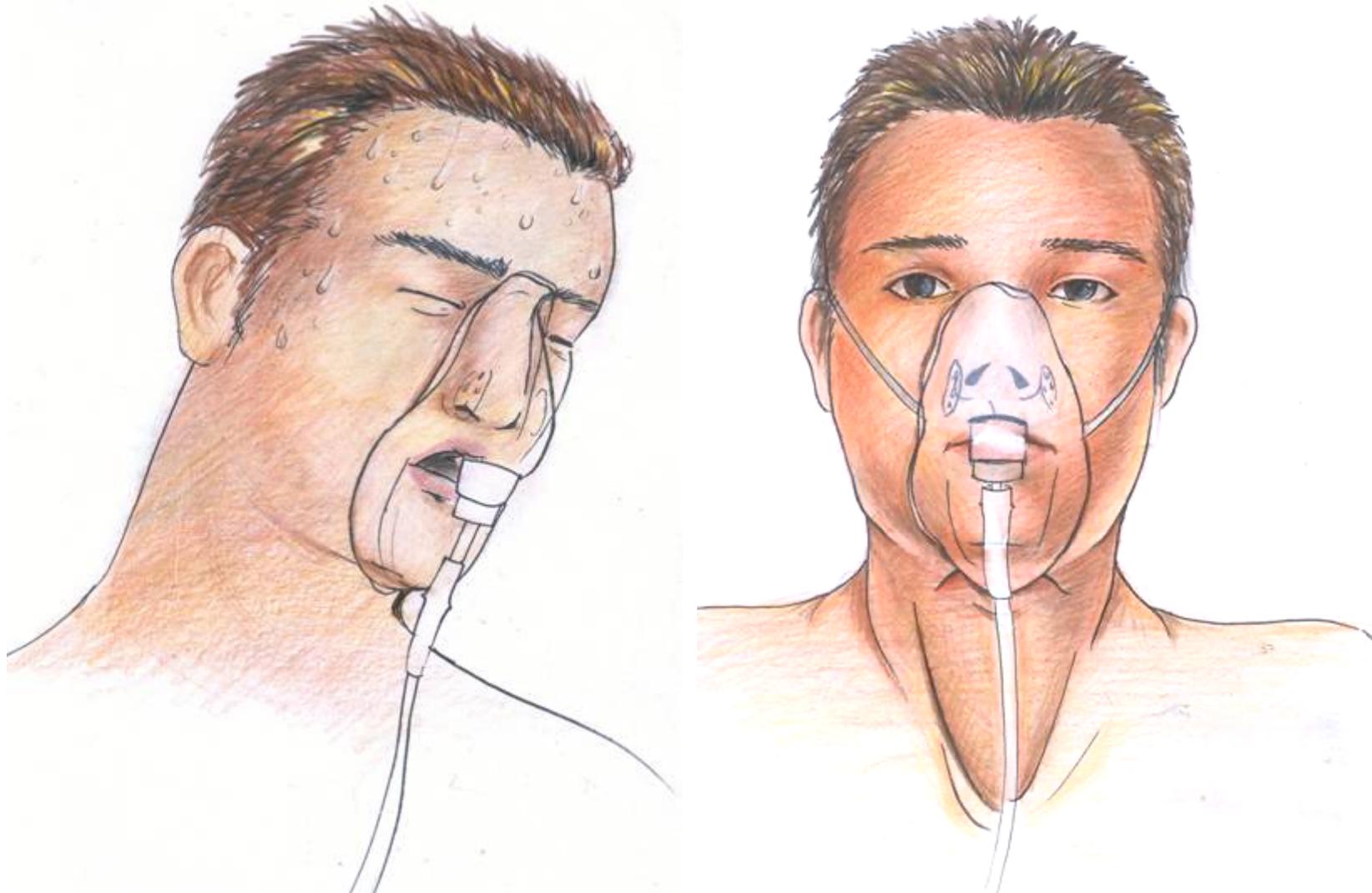
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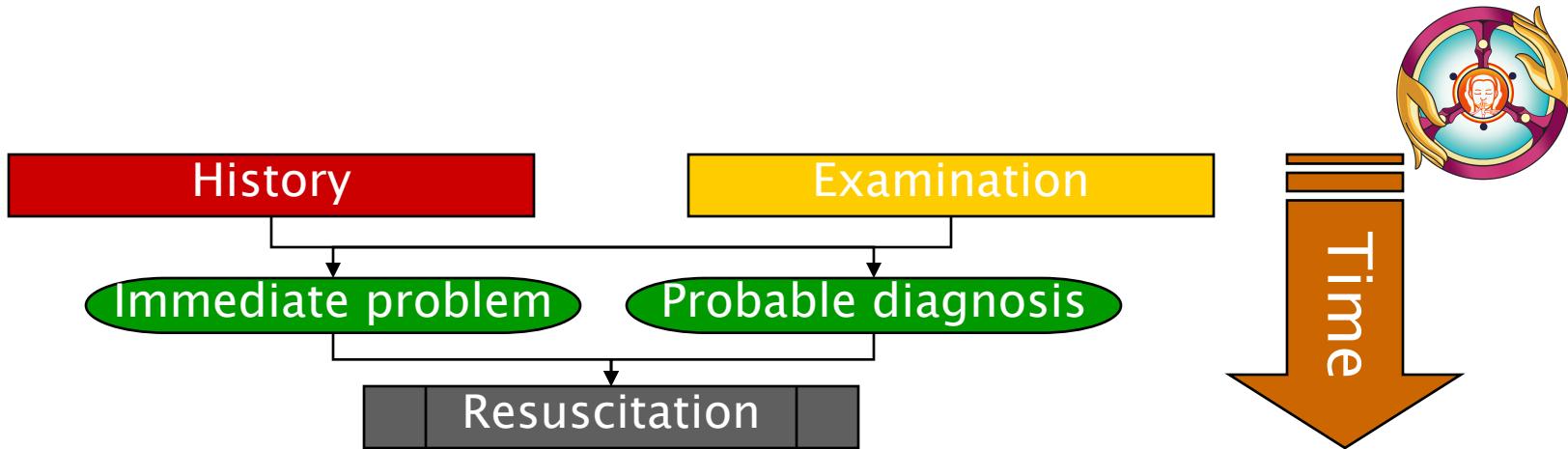


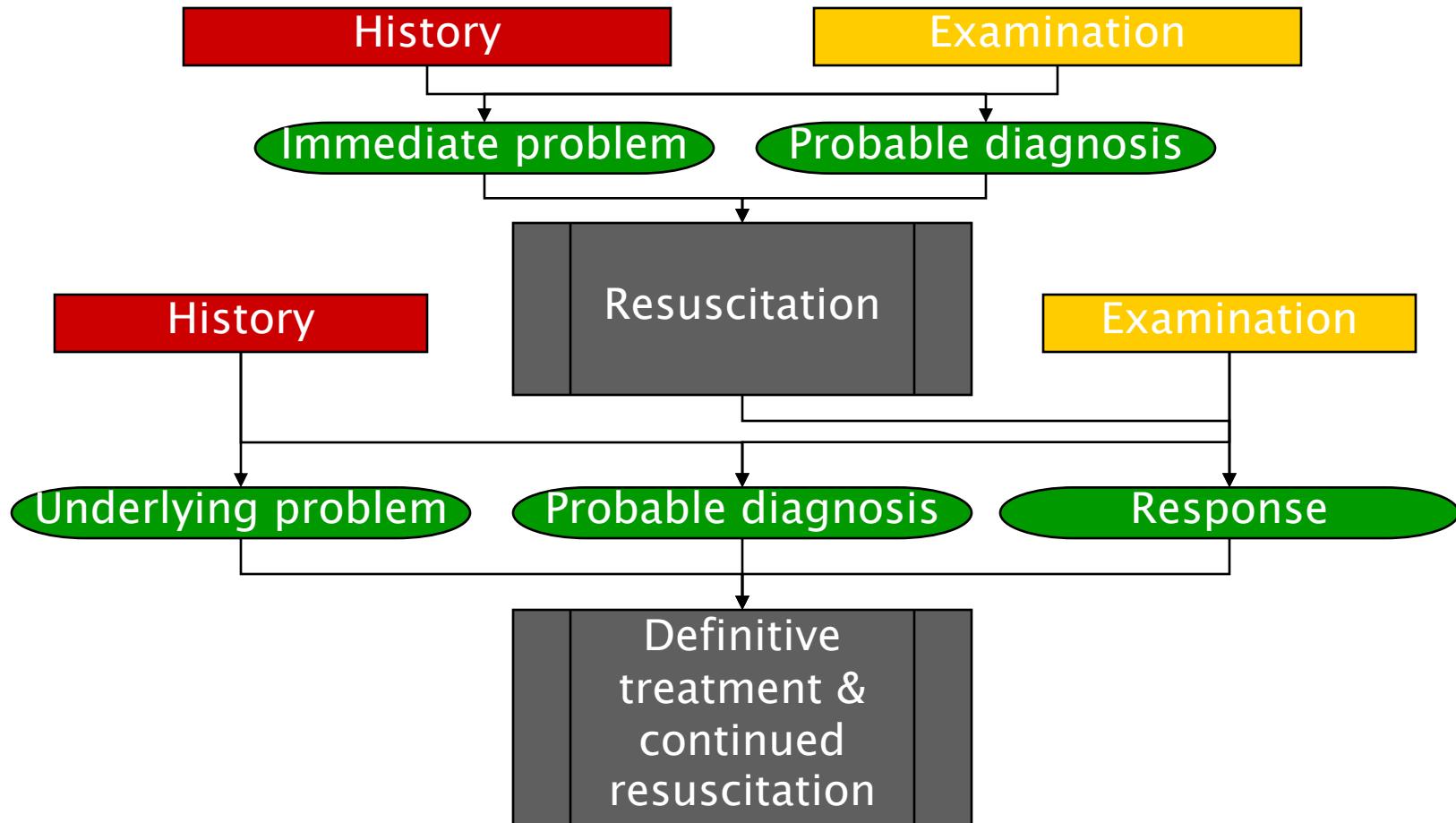


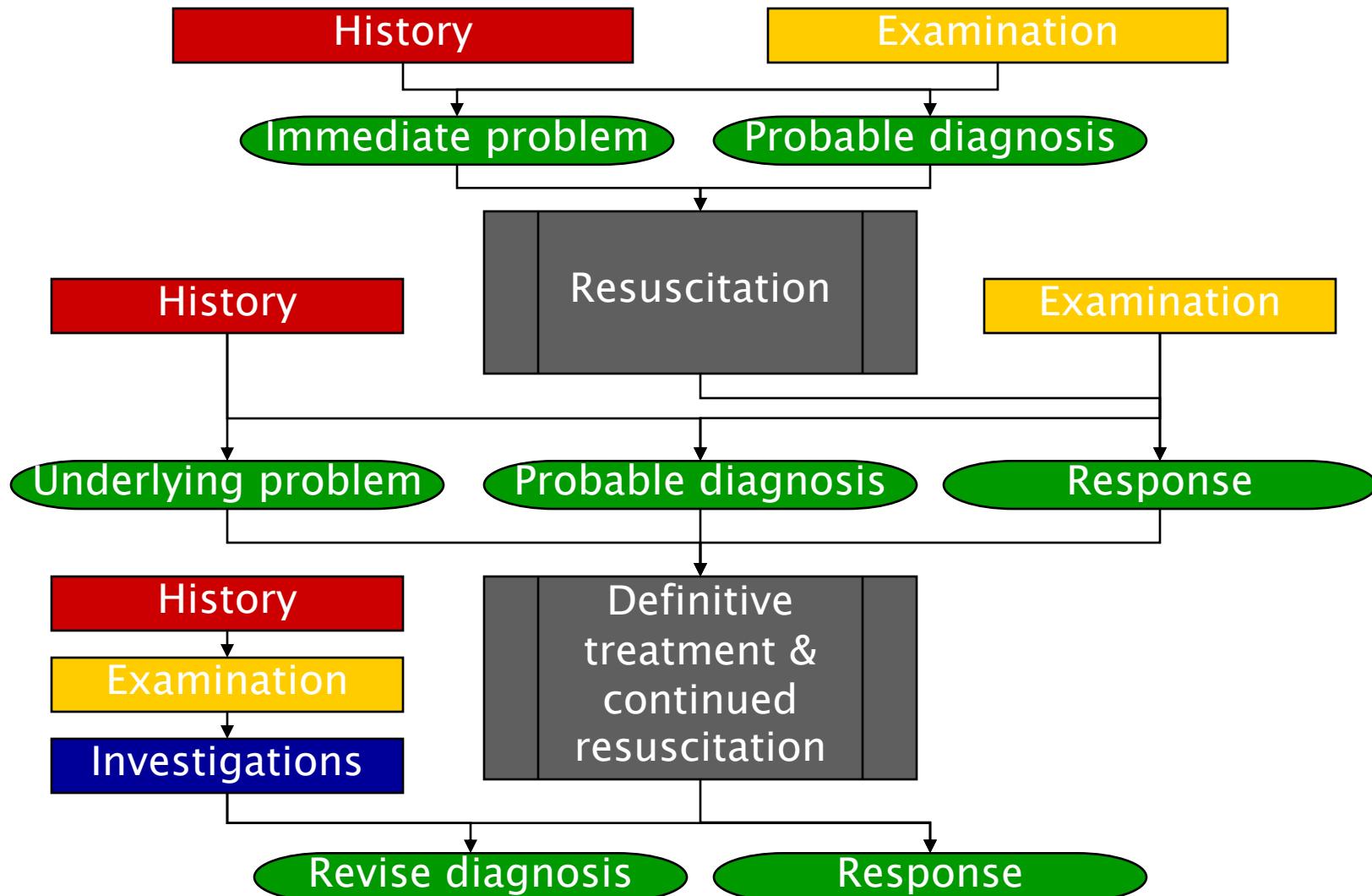


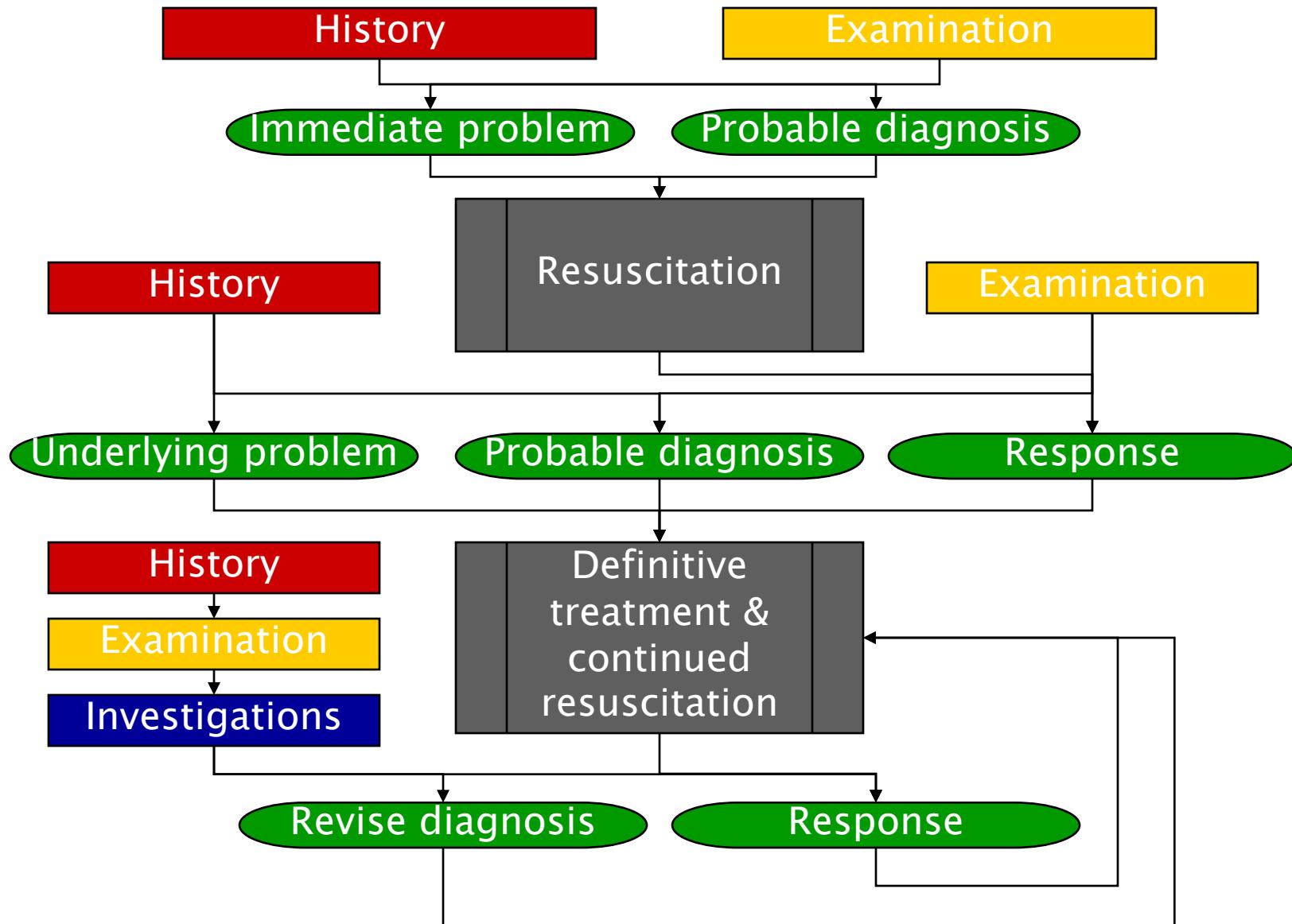
# How much time?











# Shock forms



Loss of  
circulating  
volume



Decrease in  
venous return

Loss of  
contractility-  
major arrhythmia



Failure of the  
pump function

Obstruction

(pulmonary  
embolism, tension  
pneumothorax,  
cardiac tamponade)

Loss of vascular  
tone



Maldistribution  
of blood flow



# History

- Patient
- Relatives
- Medical/paramedical staff
- Notes & charts



# History

- Immediate problem
- Physiological reserve
  - Exercise tolerance
  - Previous major illnesses

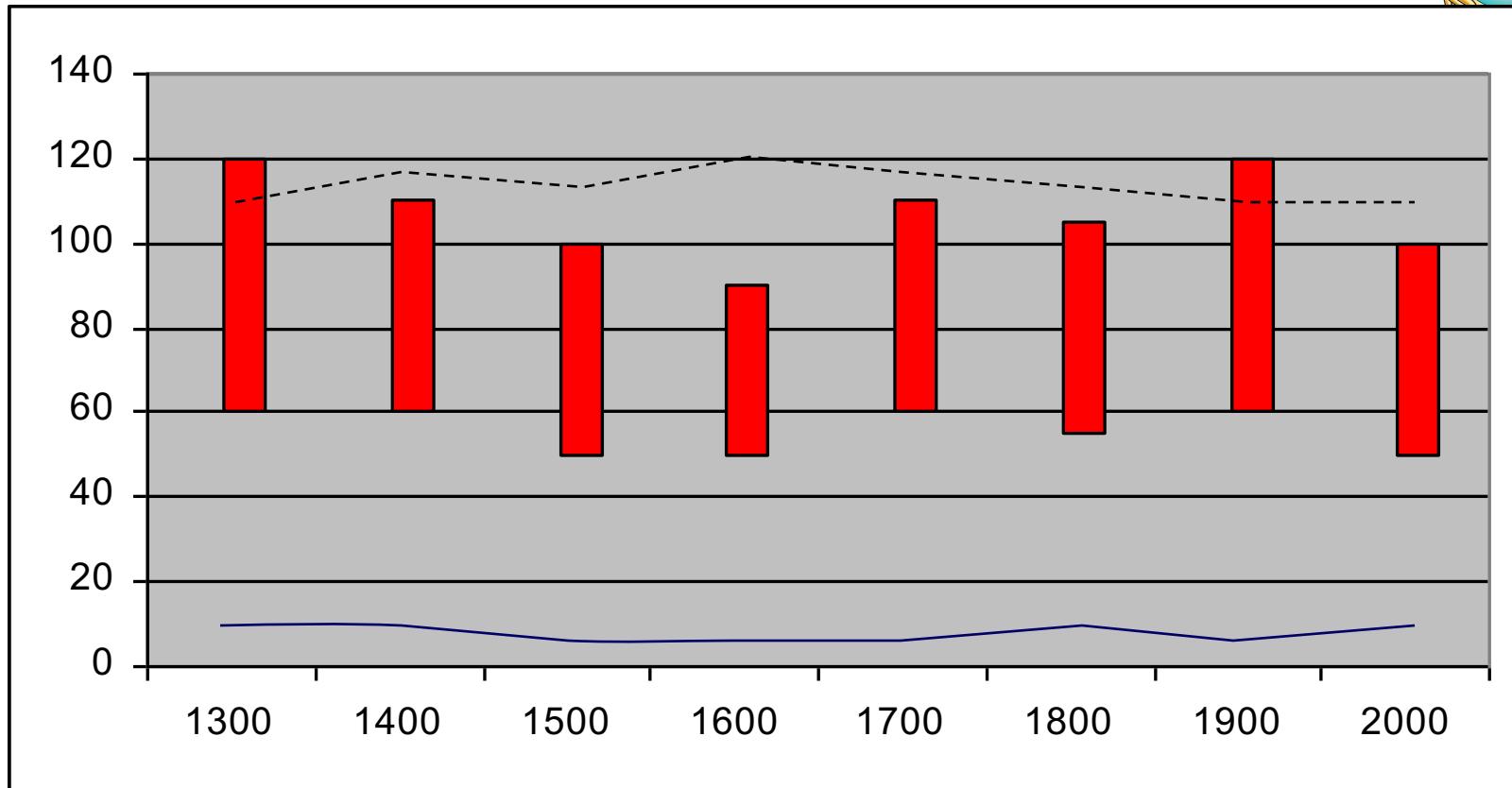


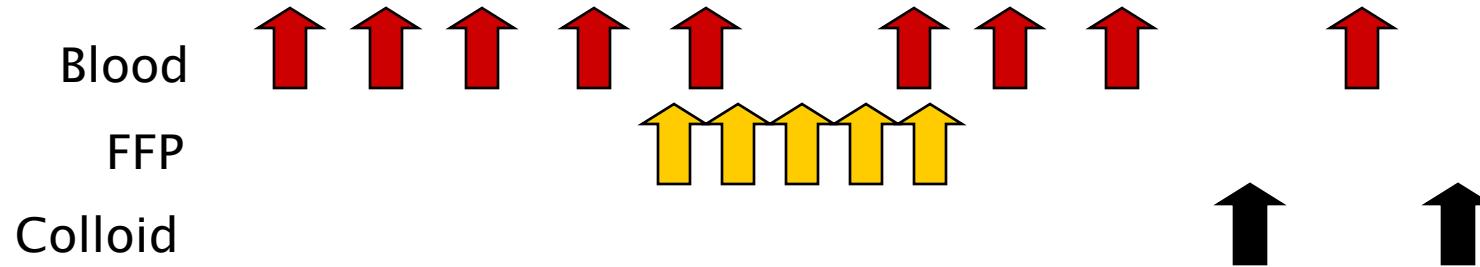
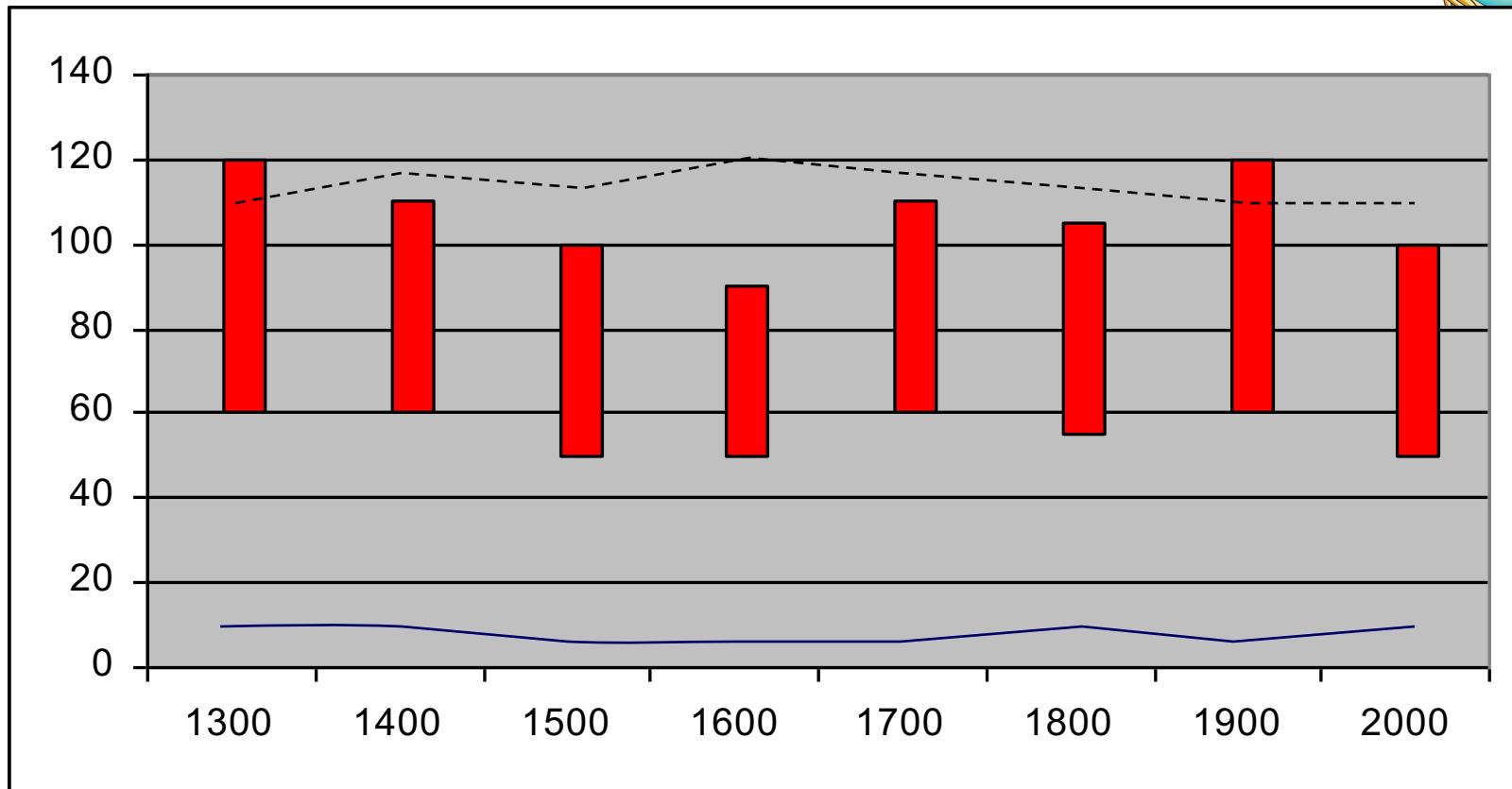
# History

- Immediate problem
- Physiological reserve
  - Exercise tolerance
  - Previous major illnesses
- Treatment
  - Definitive
  - Supportive

# Support









# History

- Later
  - Full history



# Examination

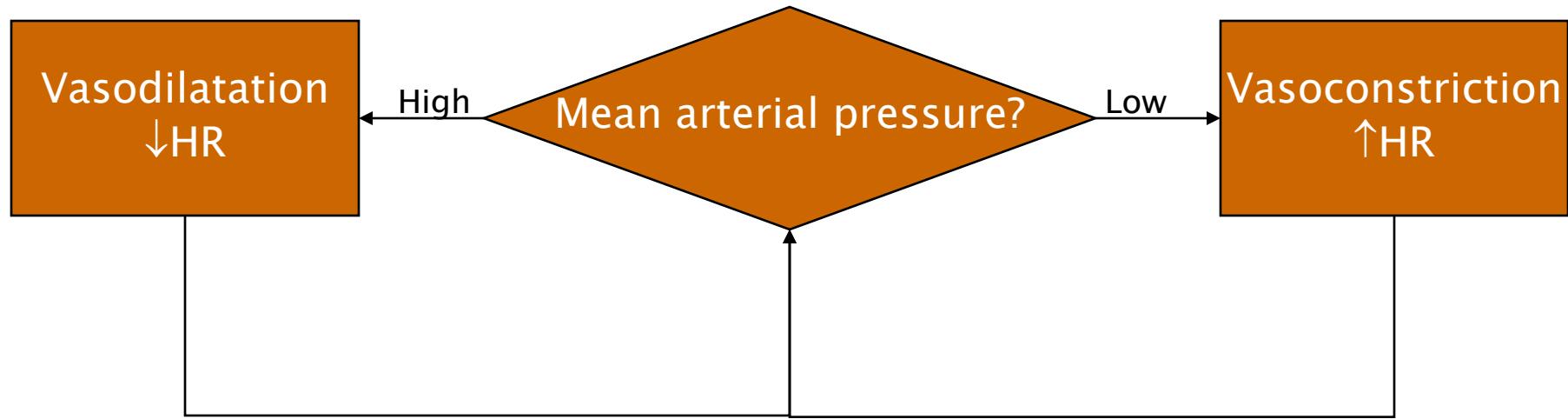
- Initial aim:
  - Rapidly determine appropriate resuscitation
  - Assess severity

∴ Limited examination
- Subsequent full examination

# Difficult to assess



# Homeostasis



- Assess compensatory response
- Failure of compensation
  - ⇒ Very severe disease

# Investigations



- Depend on clinical presentation
- Useful “routine” investigations
  - Glucose
  - Electrolytes: Na, K, Ca, Mg, PO<sub>4</sub>
  - Renal function tests
  - Liver function tests
  - CRP, PCT
  - TSH
  - LDH
  - Cardiac enzymes, (pro) BNP
  - Complete blood count
  - Clotting (including D-Dimer)
  - ABG (arterial and central venous)
  - ECG, CXR, CT scan, bedside echo
  - Pregnant?



# Airway

- Key points
  - Stridor may be absent in airway obstruction, particularly in severe cases
  - Normal oxygen saturation does not exclude compromised airway
  - Hypercarbia and ↓ consciousness ⇒ compensatory mechanisms exhausted
  - ↓HR in patient with airway obstruction ⇒ impending cardiorespiratory arrest
  - Assess sympathetic response



# Breathing

- Key points
  - Marked tachypnoea good marker of severely ill patient
  - Pulse oximetry useful, BGA useful
    - Significant desaturation late feature of inadequate ventilation
  - Tachypnoea in absence of respiratory failure may be due to metabolic acidosis or sepsis
  - Low respiratory rate may indicate impending respiratory arrest
  - Assess sympathetic response



# Breathing

- Worry if
  - RR > 30/min (or < 8/min)
  - unable to speak 1/2 sentence without pausing
  - agitated, confused or comatose
  - cyanosed or SpO<sub>2</sub> < 90%
  - deteriorating despite therapy



# Circulation

- Key points
  - Hypotension late feature of shock
  - Assess tissue perfusion
    - Conscious level
    - Peripheries
    - Urine output
    - Acidosis
  - Assess cause of shock
    - HR, JVP, peripheries



# Hypotension

- lowest acceptable BP depends on usual BP for each patient
- treat all non-pregnant, non-anaesthetised adults with systolic BP < 90 mm Hg as seriously ill
- a few will have no other signs of shock, but still need to be treated with great caution



# Conscious state

- Key points
  - ↓ consciousness in absence of neurological disease ⇒ severe systemic disease

# Report the critically ill patient



- Key points
  - think about the situation and your patient before you start to report
  - know your patient !
  - know your questions
  - use a standardized way to report your patient

(I) S B A R

<b>S</b>	<b>Situation</b>	<b>Who (you) – Who (the patient), what, why, when, how</b>
<b>B</b>	<b>Background</b>	<b>Previous illness, Risk factors, Medication</b>
<b>A</b>	<b>Acutal Situation</b>	<b>Breathing, Airway</b> Spontaneus, settings on the ventilator, BGA results
		<b>Circulation</b> Rhythm, Blood pressure vasoactive drugs, inotropes hemodynamic monitoring BGA results
		<b>Neuro</b> Level of consciousness Sedatives
		<b>Renal and hepatic function</b>
		<b>Monitoring (arterial line, central venous catheter...)</b>
<b>R</b>	<b>Recommendation</b>	<b>We would...</b> <b>We ask you...</b>

# Summary



- Altered conscious state
- Hypotension
- Tachycardia
- Tachypnoea
- Cyanosis/hypoxia
- Oliguria
- Acidosis
- Learn how to report your patient