



DEPARTMENT OF  
GENERAL  
PRACTICE

# Teaching Problem Solving Skills

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THE UNIVERSITY OF  
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# What are the ingredients of a 5 star doctor?

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- **Astute Diagnostician**
- **Up to date knowledge**
- **Good communicator**
- **Preventive health**
- **Appropriate use of health resources**

# Diagnostician

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- Rapport with patient
- Active listening
- Identify problems
- Selective PE
- Appropriate investigations
- Rational prescribing

**“HOW CAN I HELP.....?”**

# Diagnostic methods

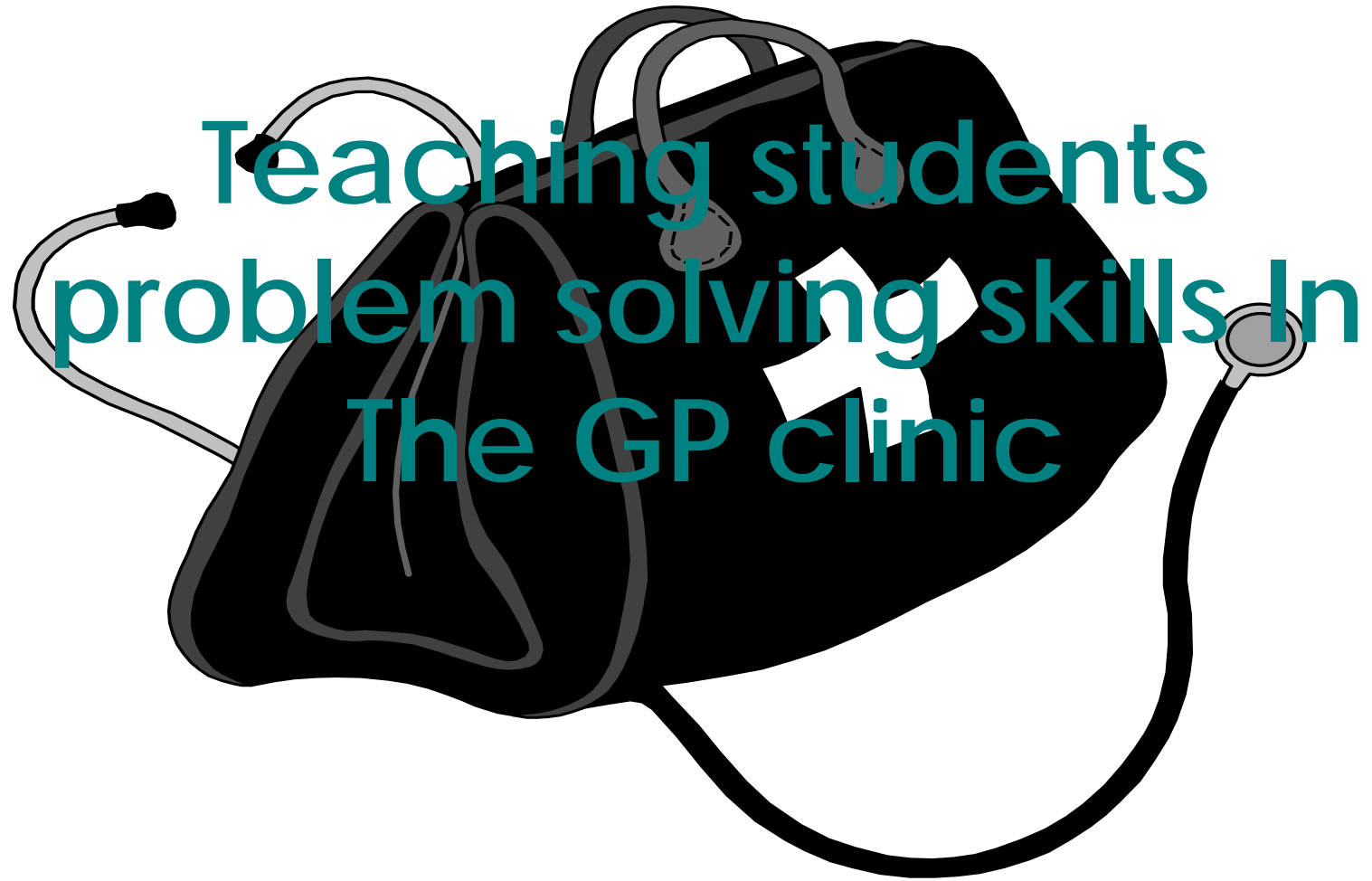
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- **Inductive method (traditional)**  
full medical social history, presenting problems, review of systems checklist, then full physical examination, differential diagnoses, battery of tests (medical students or novice clinicians)
- **Hypothetical-deductive method (current)**  
used by most practising experienced clinicians

# Hypothetical deductive method

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- A cycle loop of clinical reasoning
- initial hypotheses
- further questioning and physical examination to confirm (not confirm) our hypotheses?
- modify our hypotheses based on further history and PE and tests etc....
- We rarely do a complete history and PE using a checklist except in workplace/ medical insurance examination



Teaching students  
problem solving skills In  
The GP clinic



# Murtagh's diagnostic criteria

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- Probability diagnosis
- Epidemiological diagnosis
- What serious illness that must not be missed?
- Exclude common masquerades  
Anaemia, diabetes, depression, thyroid, musculo-skeletal, drugs
- Why is the patient here today?

# Modeling Problem solving

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- Thinking out loud about the patient
- Reviewing diagnostic hunches and consider the pros and cons of each
- Providing rationale for a diagnostic or treatment decision

# Choose appropriate cases for novice learners

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50 year old man with headache

35 year old woman presents with tiredness (Murtagh)

4 year old with cough

80 year old with chest pain

18 year old with shortness of breath

10 year old with fever

# Case study 1

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20 year old student presents with 2 days of sore throat

- What are your initial hypotheses? justify?
- What further history would you need ? Why?
- What are your hypotheses now? Why?
- What relevant physical examination would you do to support, not support your hypotheses? Why?
- Give me a problem list
- What investigations would you order?
- What treatment would you provide?



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# Questions which help students to solve problems

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- What do you think is going on with the patient?
- What other information do you think is needed?
- Why do you think the patient has been non-compliant?
- What were the major findings that led you to the conclusion?
- What else do you consider?

# Do's

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- Do involve them
- Do encourage them
- Do keep them busy
- Do challenge them
- Do make their placement a positive experience

# Don'ts

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- Don't make them a wall flower
- Don't bore them
- Don't humiliate them
- Don't complain to them about family practice
- Don't expect them all to love family practice



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**'I hear and I forget.  
I see and I remember.  
I do and I understand.'  
(confucius)**