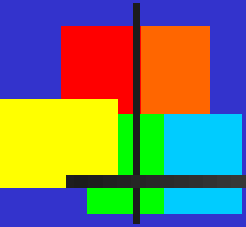


# Manchester Triage System

## A global solution



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# This session will contain..

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- Explanation
- Clarification
- Difference of opinion
- Points to make you think
- Ideas for the future



# Reasons not to triage

- No queue!
- Minimum wait
- No risk
- Identifiable and consistent workload
- Enough clinicians to manage the patients at the point of entry



# Reasons to triage



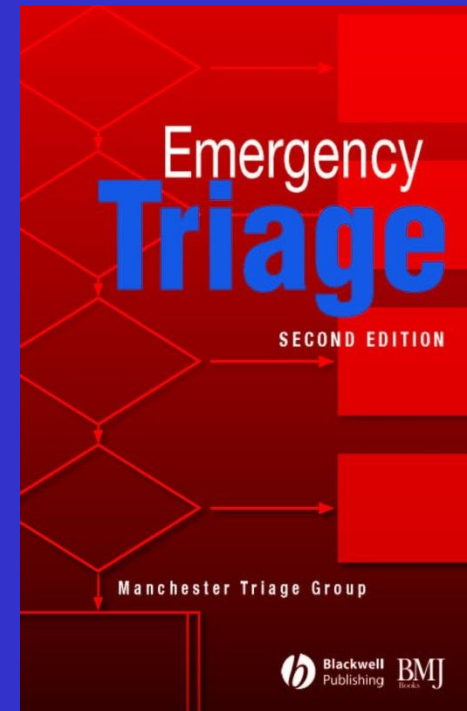
- Managing patient flow & assessing risk
- High patient attendance
- Staffing levels sub-optimal
- Signposting to most appropriate care



# History of MTS

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- 1997 - a publication
- 1998 - national solution
- 1999 - international solution
- 2000 - 82% UK ED use MTS
- 2006 – 2<sup>nd</sup> Edition
- 2011 – international gold standard for triage





# History

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- Common nomenclature
- Common definitions
- Common methodology
- Robust audit



# Triage Group: Nomenclature

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Number	Colour	Name
First	Red	Immediate
Second	Orange	Very urgent
Third	Yellow	Urgent
Fourth	Green	Standard
Fifth	Blue	Non-urgent

# Definitive management: Time to be seen

- First
- Second
- Third
- Fourth
- Fifth

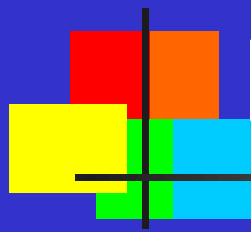
10 min

60 min

0 min

120 min

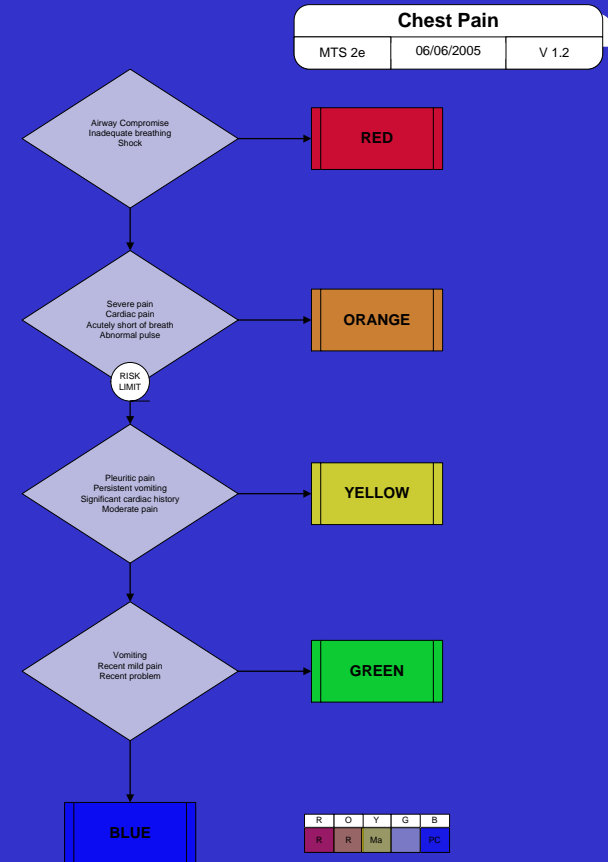
240 min





# MTS - Algorithms

- Presentations (50)
- Discriminators (195)
- Reductionist methodology



# International activity (2<sup>nd</sup> Eds)

- Austria
- Brazil
- Finland
- Germany
- Holland
- *Mexico*
- Norway
- **Portugal**
- Spain
- Sweden





# Portuguese standards

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- MOU – Minister for health
- Central control of MTS
  - Training
  - Monthly audit
  - Quality Assurance





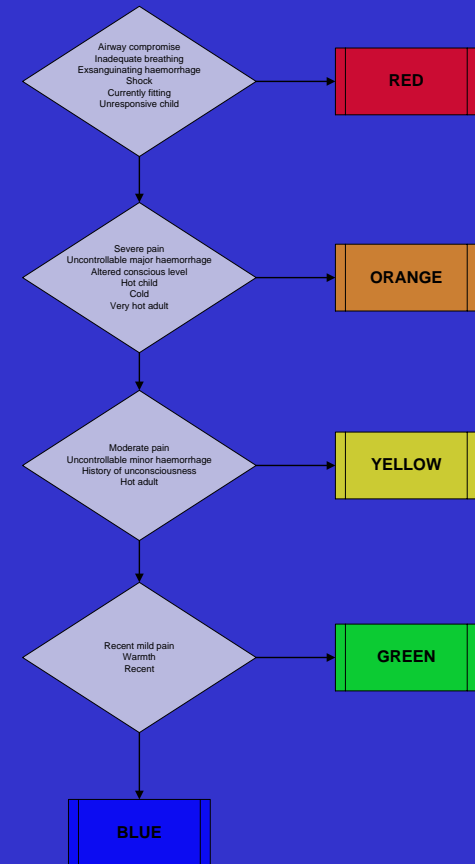
# Defining Triage

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- Triage is a process NOT an outcome
- To sort, to direct - requires clinical judgement
- To rapidly assess a patient and assign a priority based on clinical need (MTS 2006)
- ED Triage deals with undifferentiated / undiagnosed patients
- A pit-stop **NOT** an MOT! Ideal triage time per patient less than 2 min

# A professional triage event

- A systematic process
- Facilitated by patient presentation algorithms
- Uses a series of general and specific discriminators to guide decision-making
- Excellent clinical risk management tool
- Can be performed rapidly and confidently to reach appropriate priority





# Training 1<sup>st</sup> Edition (1996)

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- Manchester Triage Group trained everyone initially but.....
  - Many courses
  - Labour intensive
  - Diluted message
  - Little control by the group



# Training – 2<sup>nd</sup> Edition (2006)

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- Centralised training
- Training the trainers
  - 2 trainers per ED
  - One day course
  - Training materials standardised
- Commitment to update & audit
- Register of trainers
- Departments registered as training centres



# Accuracy of MTS

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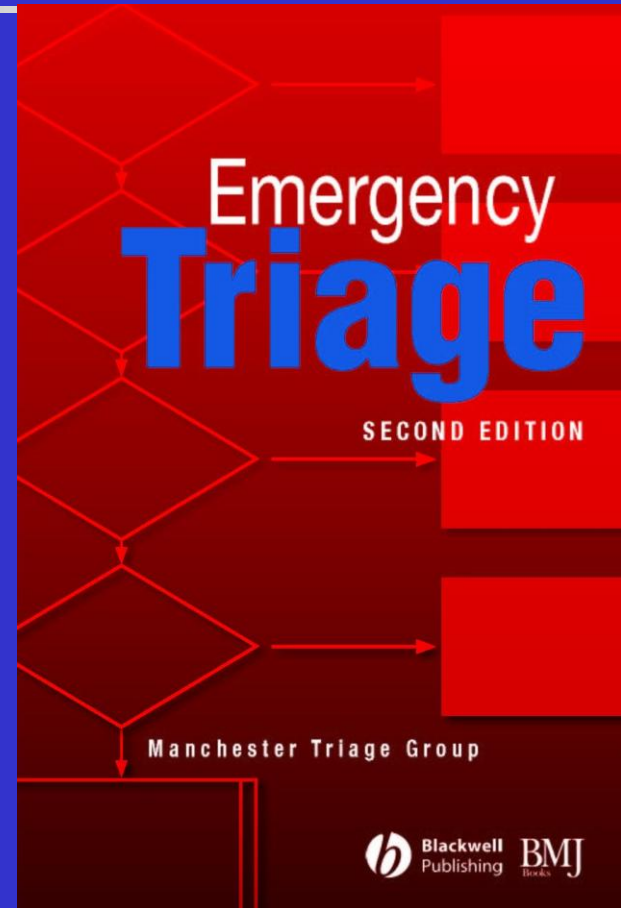
Auditing triage practice





# Principles of MTS

- Designed to reduce unwarranted variations in in the triage process
- Audit provides quality management process
- Triage is a fundamental cornerstone of clinical risk management





# Purpose of robust audit

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- Continuous assessment of accuracy ensuring triage decisions are safe and reproducible
- To audit quality of decision making against the MTS standard
- To highlight good practice & address poor performance



# Audit criteria

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- Correct use of presentational flow chart
- Specific discriminators
- Pain score recorded
- Correct category assigned (based on pt. Presentation & discriminator)
- Appropriate free text
- *Correct use of computerised systems*
- *Re-triage as appropriate*



# Getting started

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- Initial period of supervised practice
- Assessed in action using the audit criteria
- Once competent independent triage begins
- Short sharp episodes of experience!!!
- 20 consecutive triage events submitted for independent audit of practice



# Audit

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- Audit of *2987* patient records over two separate weeks in March and May 2012
- Data scrutinised to reveal:
  - Patterns of patient presentations
  - Triage nurse accuracy of decision making
  - Application of PCC referral protocol
  - Number of referrals to PCC on protocol and variances off protocol



# Audit results

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## March 2012

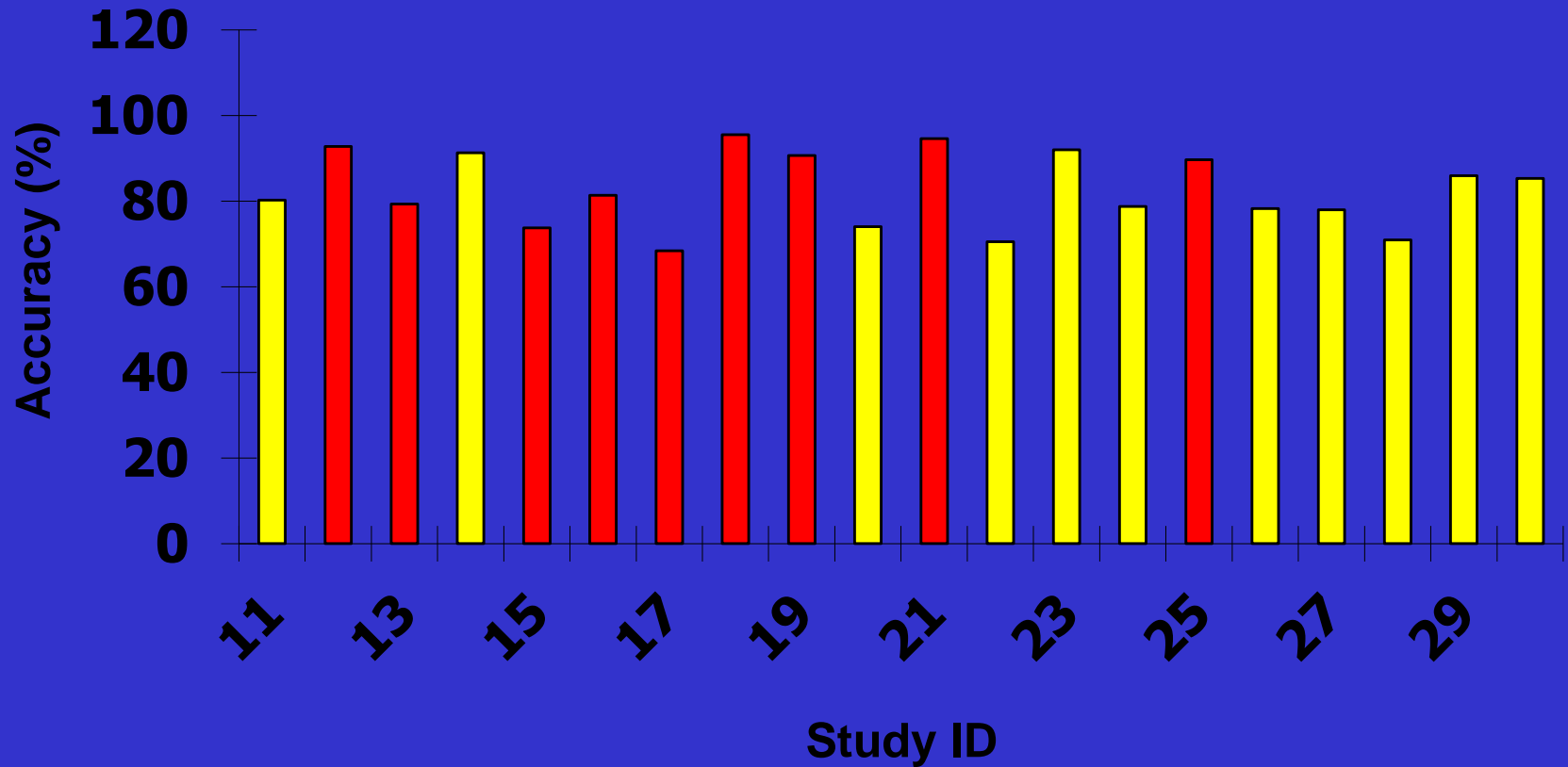
- 1579 patient records
- Triage accuracy 96.7%
- Accuracy and senior band not related
- Referral rate to PCC 10.5%
- Non-traumatic limb & eye problems routinely sent off protocol

## May 2012

- 1409 patient records
- Triage accuracy 98.9%
- Referral rate to PCC 12.3%
- Reduction in missed patients to PCC
- Protocol updated to include new presentations

# Electronic v paper system

Computerised versus Manual systems





# Value added triage

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- Pain assessment & analgesia at entry
- Radiology request
- Fast track referral / admission
- Streaming to most appropriate part of service



# Emergency Nurse Practitioners

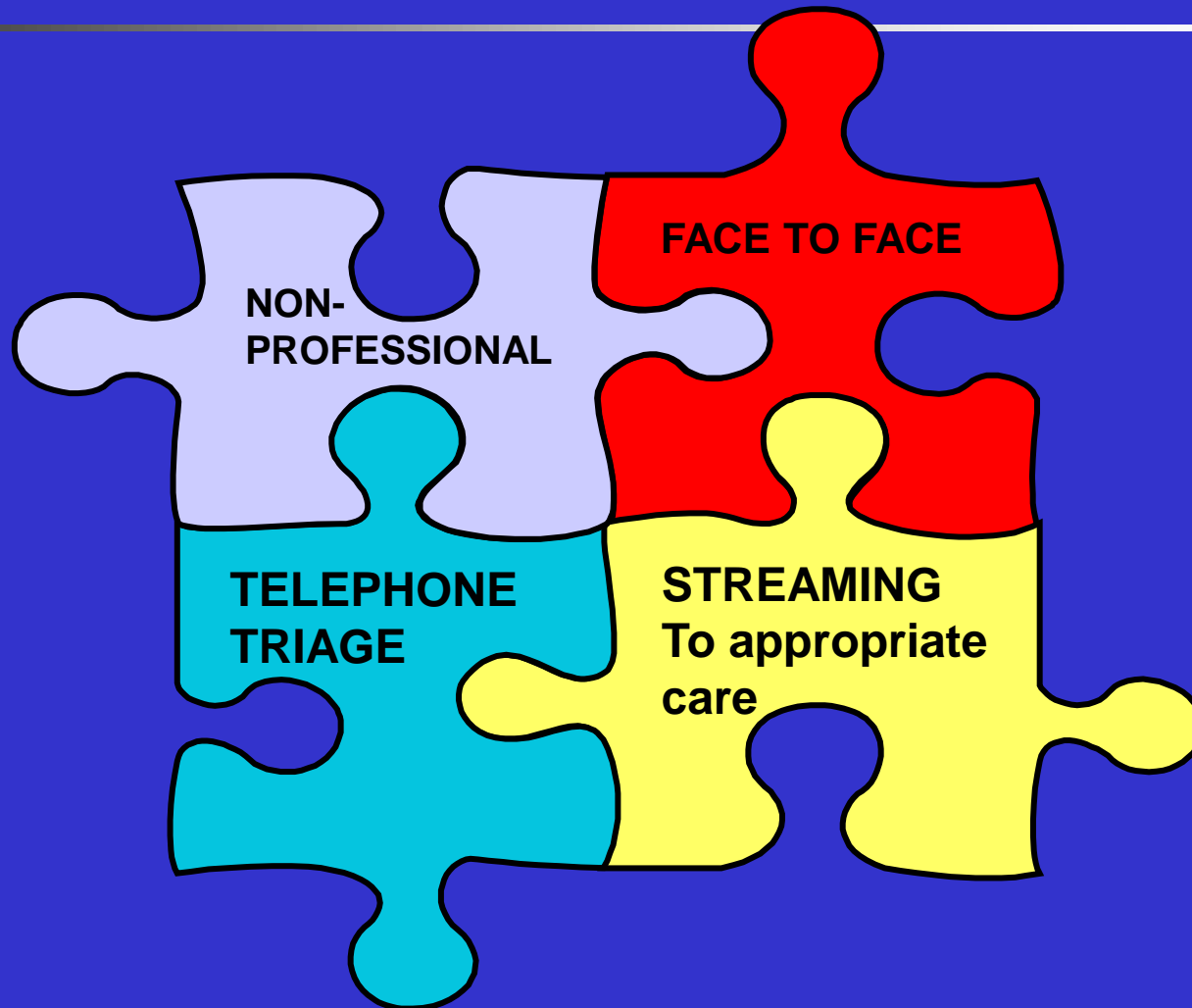
- Defined patient presentations
- Assessment, treatment and diagnostic ability
- Academic qualifications
- Non-medical prescribing
- High levels of responsibility
- Choice for patients



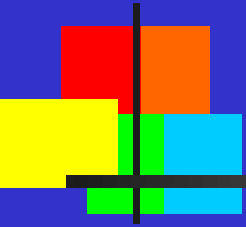


# What else can MTS do?

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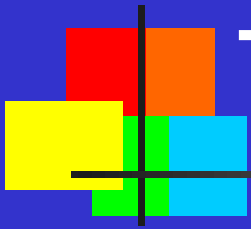


# The Manchester Triage System: Beyond prioritisation



Signposting to various clinicians e.g.  
Emergency Nurse Practitioner

Streaming to various services e.g. Primary  
Care, Pharmacy, Dentist



# Triage

- A clinical risk management process

Priority

# Streaming

- A clinical management process

Disposition



# Streaming with MTS

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R	O	Y	G	B

- Presentation Priority Matrix
- 50 presentations - 5 priorities
- 250 dispositions
- Local mapping / application



# Presentation Priority Matrix

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**A disposal model**

**Identifies specific routes of care for patients**

**Effective means of 'signposting patients'**

**Add routes to matrix, existing and developing dispositions, e.g. pharmacy, OOH service**

<b>R</b>	<b>O</b>	<b>Y</b>	<b>G</b>	<b>B</b>
<b>R</b>	<b>Ma</b>	<b>Mi</b>	<b>PC</b>	<b>PC</b>



# Making the most of the PPM

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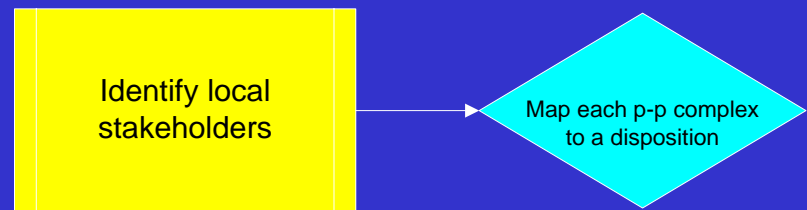
- Triage is a dynamic process
- Why not use MTS to signpost patients to right clinician, right place at the right time
- Not necessarily the ED
- Presentation Priority Matrix (PPM) offers creative solutions



# Stakeholder work

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- ED Consultants
- Senior ED Nurses
- Primary Care Nurses
- GPs
- Primary Care Physician
- Emergency Care Practitioners (ECP)



R	O	Y	G	B



	1	2	3	4	5
<b>Abdominal pain in adults</b>	R	Ma	Ma <sup>P</sup>	PC	PC
<b>Abscesses and local Infections</b>	R	Ma	Mi	PC	PC
<b>Allergy</b>	R	R	Ma <sup>P</sup>	PC	PC
<b>Asthma</b>	R	R	Ma	PC	PC
<b>Back pain</b>	R	Ma	Mi <sup>P</sup>	PC	PC
<b>Bites and stings</b>	R	R	Mi <sup>P</sup>	PC	PC
<b>Chest pain</b>	R	R	Ma	Mi	PC
<b>Collapsed adult</b>	R	R	Ma	Mi	PC
<b>Dental problems</b>	R	Ma	Mi	Dent	Dent
<b>Diabetes</b>	R	R/Ma	Ma	PC	PC
<b>Diarrhoea and vomiting</b>	R	R	Ma <sup>P</sup>	PC	SC
<b>Ear problems</b>	R	Ma	Ma <sup>P</sup>	PC	PC
<b>Eye problems</b>	R	Ma	Mi/Eye	Mi	PC

# Collaboration

- Consensus reached
- First working protocol produced – not only streamed patients to Primary Care Centre (PCC) but also within ED and the Trust
- Triage nurses apply protocol to redirect appropriate patients to PCC / GP
- Various revisions to reflect service use



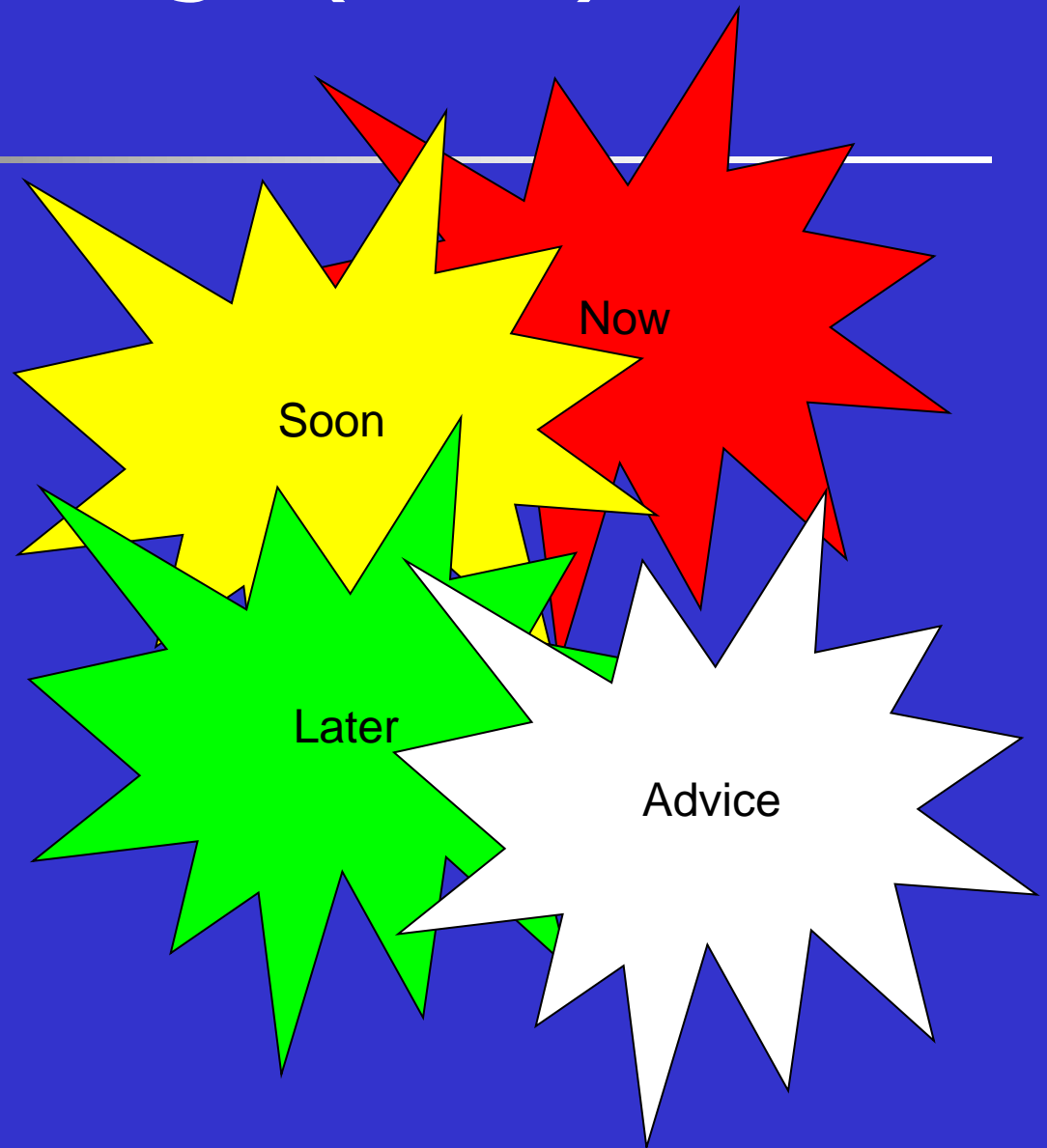
# Commonly GP Streamed presentations

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<b>Presenting complaint</b>	<b>Number</b>	<b>Percentage</b>
Abdominal pain in adults	576	8.6%
Abscess & local infections	296	4.4%
Limb problems (A traumatic)	1145	17.2%
Rashes	331	5.0%
Sore throat	235	3.5%
Totals	2583	38.7%

# Telephone Triage (1999)

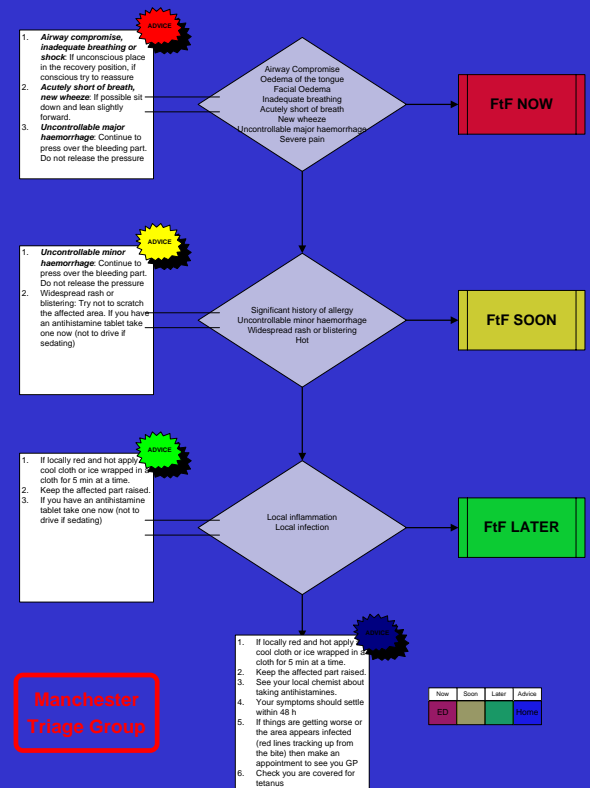
- Now
- Soon
- Later
- Advice



# Telephone charts

- Matching format
- Same principles
  - Face to face now
  - Face to face soon
  - Face to face later
  - Advice

Bites and Stings		
MTS TTA	31/01/2006	V1.2



# Telephone Triage

- Used by Ambulance Service
- Urgent care desk
- Prioritisation of despatch of help
- Advice until help arrives



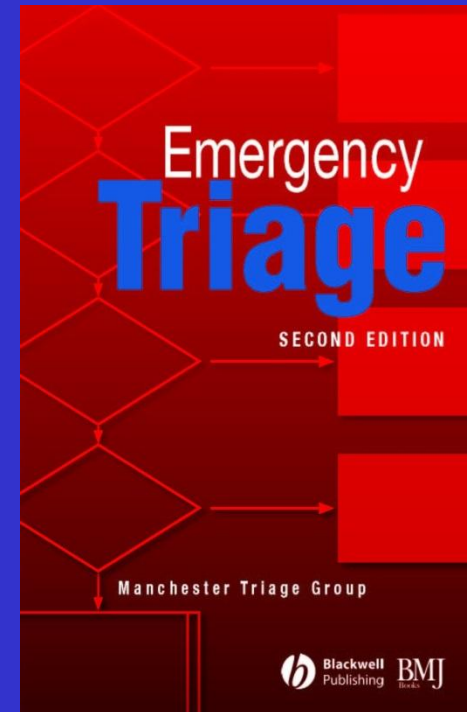
# Sustained practice



- Effective triage
  - Accurate
  - Right patient directed to right clinician in the right place
- Patients streamed to dispositions in & out of the ED
- Continued safe decisions
- Sharing best practice of MTS spanning both acute & primary care presentations

# Future of MTS

- 2013 – 3<sup>rd</sup> Edition publication
- 2013 – Azores TTA pilot
- 2013 – Mexico
- Launch of website  
[www.triagenet.net](http://www.triagenet.net)  
[www.tri.net](http://www.tri.net)
- Benchmarking audit
- *2014 – Italy joins the International Reference Group ???*





Thank you

