

Development of Key Performance Indicators for Irish Emergency Departments

Delphi Round 1 Summary Report

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Prepared by:

Abel Wakai, Ronan G. O'Sullivan, Paul Staunton, Fergal Hickey, Patrick K. Plunkett

Introduction:

Key Performance Indicators, also known as KPI or Key Success Indicators (KSI), help an organization define and measure progress toward organizational goals. Meanwhile, the medical profession is being urged to be more accountable and outcome indicators are being developed across a broad range of specialties.^{1,2}

Potential indicators of good quality of care in emergency departments in the UK have recently been identified by a Delphi study.¹ Proposals which reached consensus as good indicators of quality of care in the emergency department in the Delphi study reflected structure, process and outcome.¹

There is currently no scientifically valid published set of KPIs developed for Irish emergency departments. The development of KPIs suitable for audit is essential to define the role of the emergency department and to monitor the standard of care within the specialty of emergency medicine in Ireland. The aim of this study is to develop a consensus amongst Emergency Medicine (EM) specialists working in Ireland for Irish emergency department KPIs.

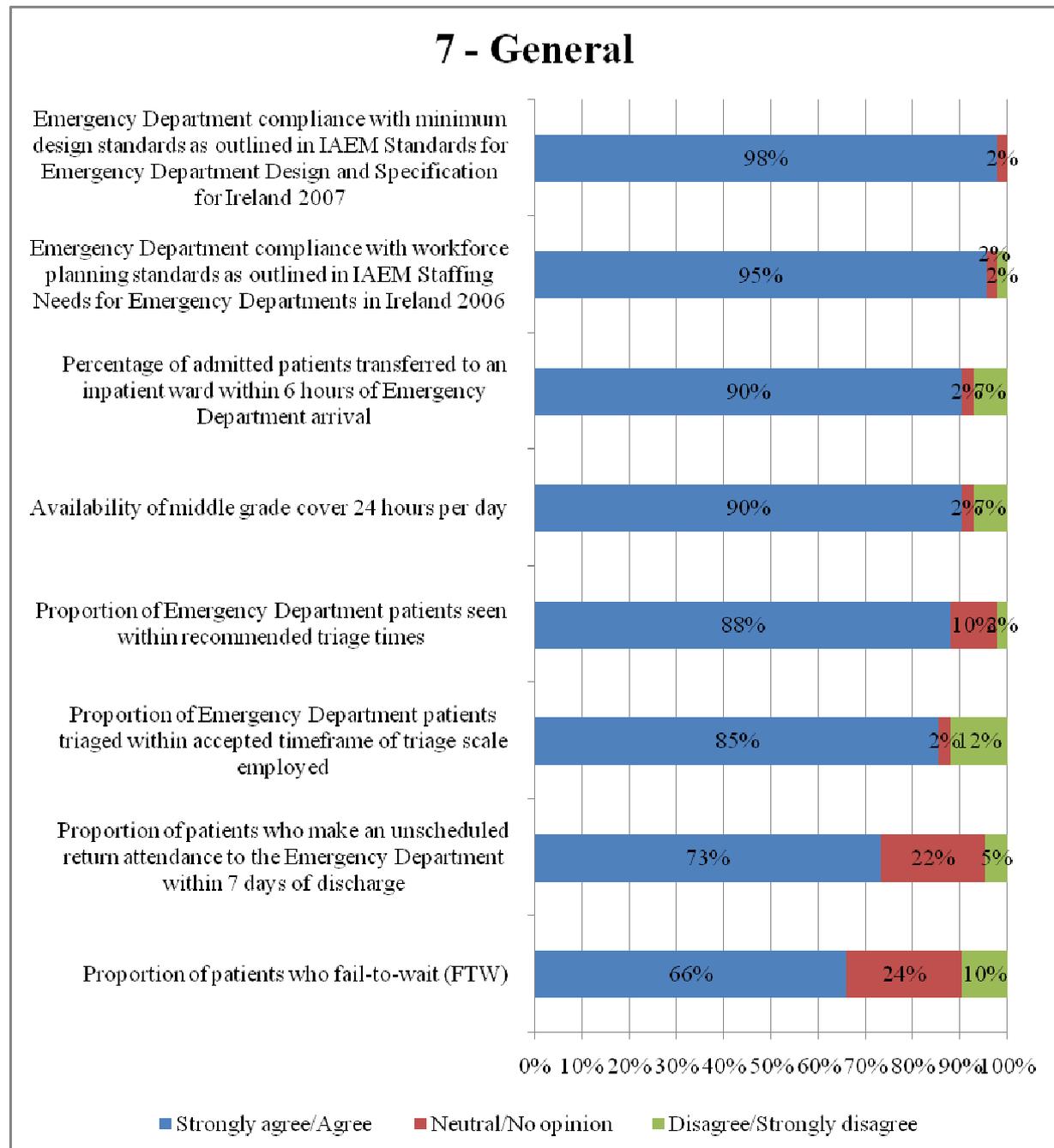
In total 41 Specialists in Emergency Medicine responded to the survey (86% response rate). 16(39%) of the respondents practice adult EM only, 3 (7.3%) paediatric EM only and 22 (53.7%) practice both adult and paediatric EM.

This document provides a summary of the response to the first round questionnaire and a synopsis of any qualitative comments made.

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1. Beattie E, Mackway-Jones K. A Delphi study to identify performance indicators for emergency medicine. *Emerg Med J* 2004;21:47-50.
 2. Cleary R, Amess M, Coles J. Phase 3 outcome indicators – results from a series of pilot studies. *CASPE Research*, September 1999.

General Performance Indicators:

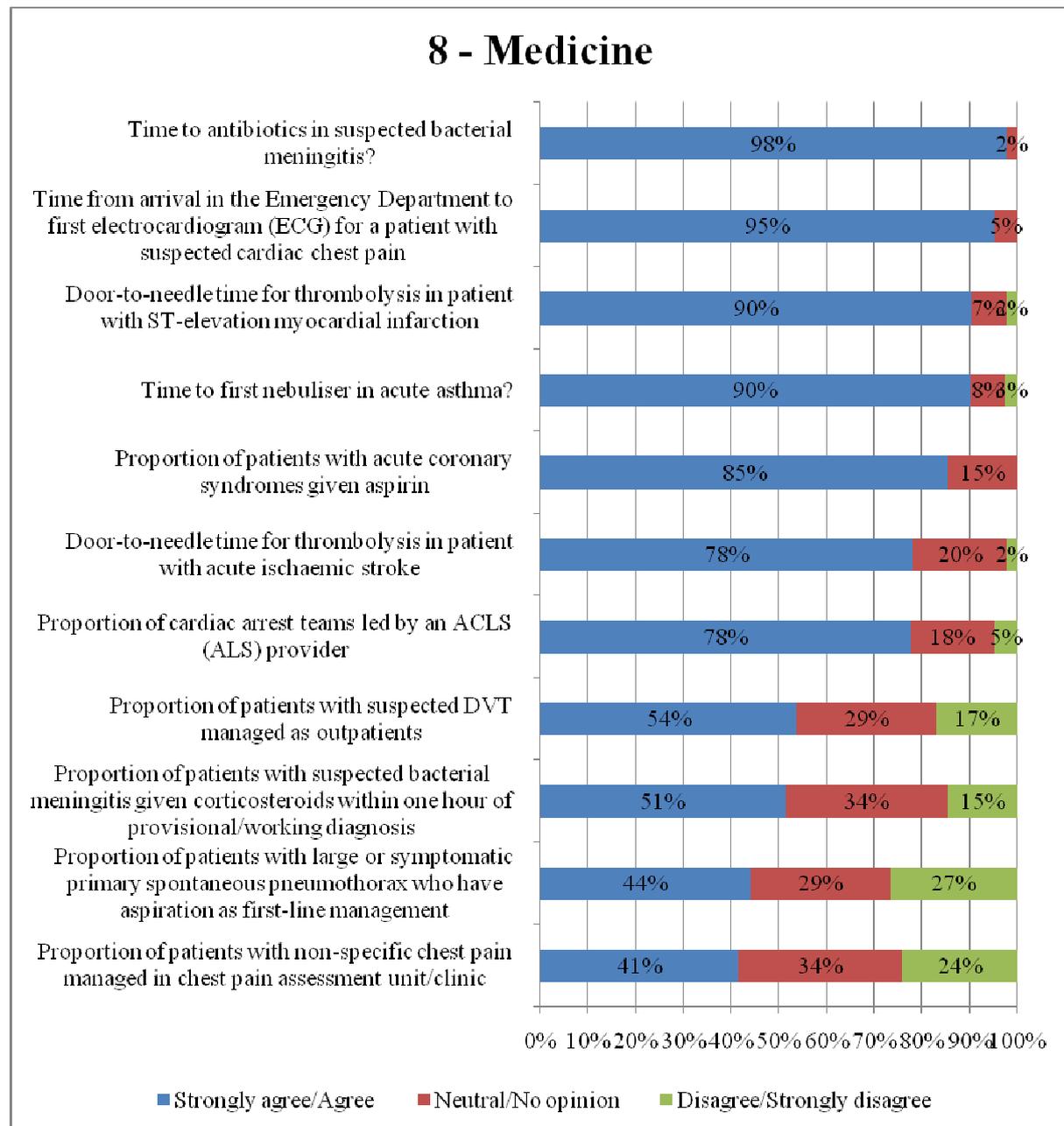
Seven of the eight proposed general key performance indicators, achieved a high agreement score (strongly agree or agree) from at least 70% of the respondents.



- Respondents suggested several other potential general KPIs:
 1. Time from referral to review by inpatient team. (5 respondents)
 2. Total time spent under the care of the EM service (door to disposition) (5 respondents)
 3. Availability of patient information leaflets / education (2 respondents)
 4. Undergraduate and Postgraduate training in the department (2 respondents)
 5. Number of complaints per 1000 attendances (2 respondents)
 6. Admission avoidance strategies in place (2 respondents)
 7. Regular clinical audit (2 respondents)
 8. Access to Social work, physiotherapy and occupational therapy (2 respondents)
 9. ED occupancy levels (e.g. number of attendances divided by number of patient assessment areas) (2 respondents)
 10. Evidence based protocols / pathways in place (2 respondents)
 11. Adherence to evidence based protocols / pathways (2 respondents)
 12. Cleanliness of the department / adherence to infection control policies (2 respondents)
 13. Admission rates per 1000 attendances / triage category (2 respondents)
 14. Time to first assessment by EM Doctor or ANP
 15. Number of ambulance bypass requests
 16. Number of clinical incident reports
 17. Participation in international audit
 18. Measurement of daily activity ('Casemix')
 19. Appropriateness of referrals for admission
 20. Proportion of consultant to consultant referrals
 21. Proportion of patients discharged / referred to OPD
 22. Proportion of re-attenders seen by a more senior doctor on 2nd presentation
 23. Presence of a dedicated ED clinical information system
 24. Use of full capacity protocol to deal with over crowding
 25. Clear streaming policies with specific conditions seen directly by inpatient teams (e.g. optician referrals to Ophthalmology)
 26. Discharge coding for patients leaving the ED
 27. IT systems to monitor time taken to manage specific complaints
 28. EWTD compliance among NCHD (Staff and patient safety)
 29. Time from Bed request to bed availability
 30. Time from OPD appointment request to appointment
 31. Morbidity and Mortality conferences
 32. Door to triage time
 33. Number of unplanned returns
 34. Availability of isolation facilities
 35. Availability of observation beds
 36. Complaints / Compliments log
 37. System in place to manage complaints
 38. KPIs for CDUs
 39. Variety of inpatient specialist teams available
 40. Seniority of doctor receiving inpatient referral
 41. Proportion of patients seen by a senior member of the EM staff

Performance Indicators related to Medicine:

Seven of the eleven proposed KPIs related to medicine, achieved a high agreement score (strongly agree or agree) from at least 70% of the respondents:

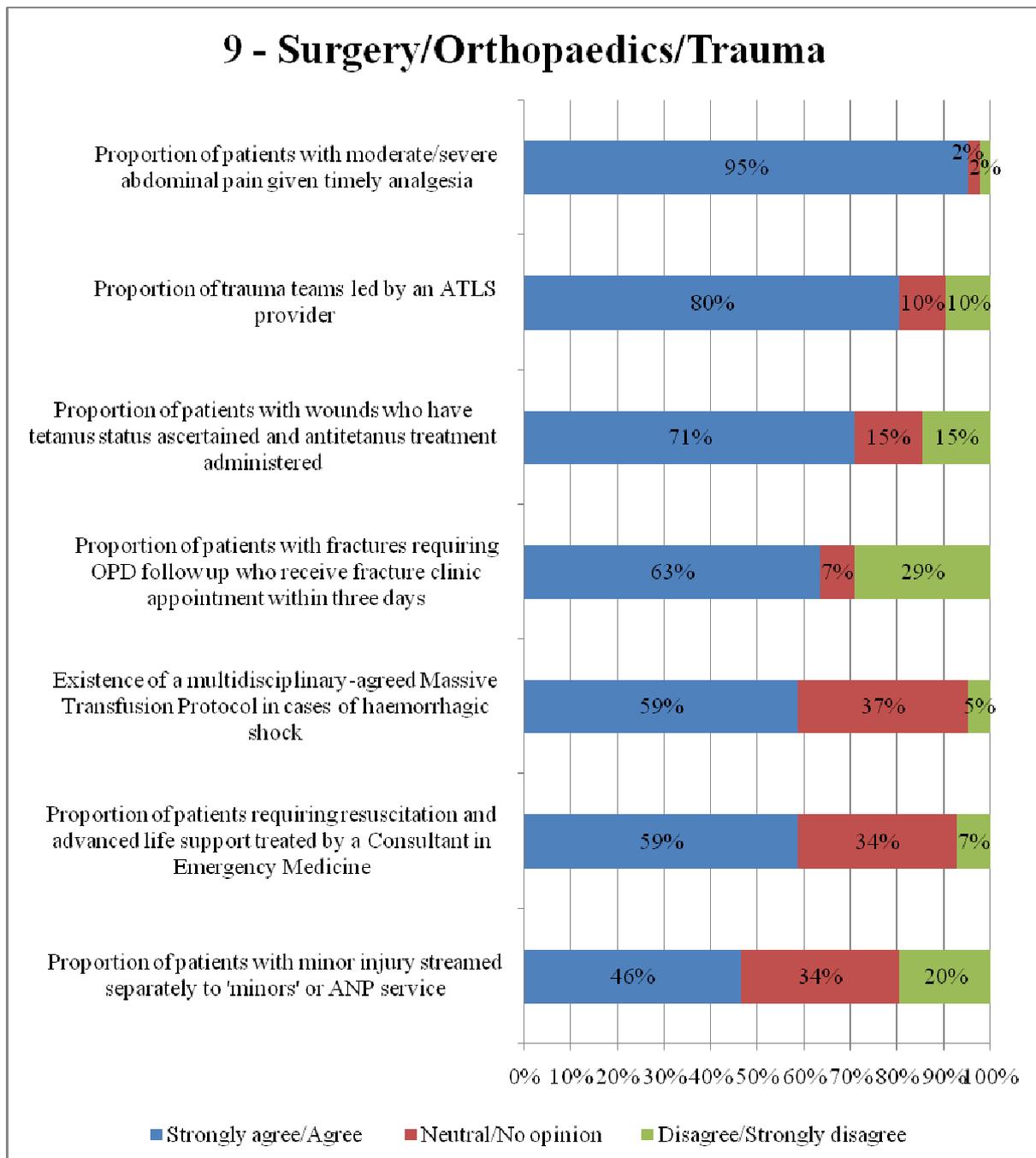


- The respondents suggested a number of changes to the wording of the above KPIs;
 1. In place of ‘door to needle time in thrombolysis of patients with STEMI’:
 - ‘Door to balloon time for acute Myocardial Infarction’
 - ‘Door to time of reperfusion therapy’
 2. In place of ‘proportion of patients with acute coronary syndrome’:
‘proportion of patients with suspected acute coronary syndrome’.
 3. In place of ‘proportion of patients with acute coronary syndromes given aspirin’: ‘proportion of patients with acute coronary syndromes given aspirin, if not done in the pre-hospital setting’
 4. In place of ‘proportion of patients with DVT managed as an outpatient’ it may be more appropriate to be ‘proportion of suitable patients with DVT managed as an outpatient’. This could avoid bias due to catchment area.

- Several other KPIs were suggested by respondents:
 1. Time to antibiotics in Sepsis of any cause (instead of bacterial meningitis)
 2. Appropriateness of prescribing
 3. Measurement of PEFR in patients presenting with an exacerbation of Asthma
 4. Treatment of patients presenting with exacerbations of Asthma with Beta agonists
 5. 24 hour availability of angioplasty
 6. Percentage of patients with chest pain who have a repeat ECG preformed within 30 minutes
 7. Adherence to proven poisoning management pathways
 8. Proportion of patients presenting with an exacerbation of asthma who receive steroids prior to discharge

Performance Indicators related to Surgery, Orthopaedics and Trauma:

Three of the seven proposed KPIs relating to Surgery, Orthopaedics and Trauma achieved a high agreement score (strongly agree or agree) from at least 70% of the respondents:

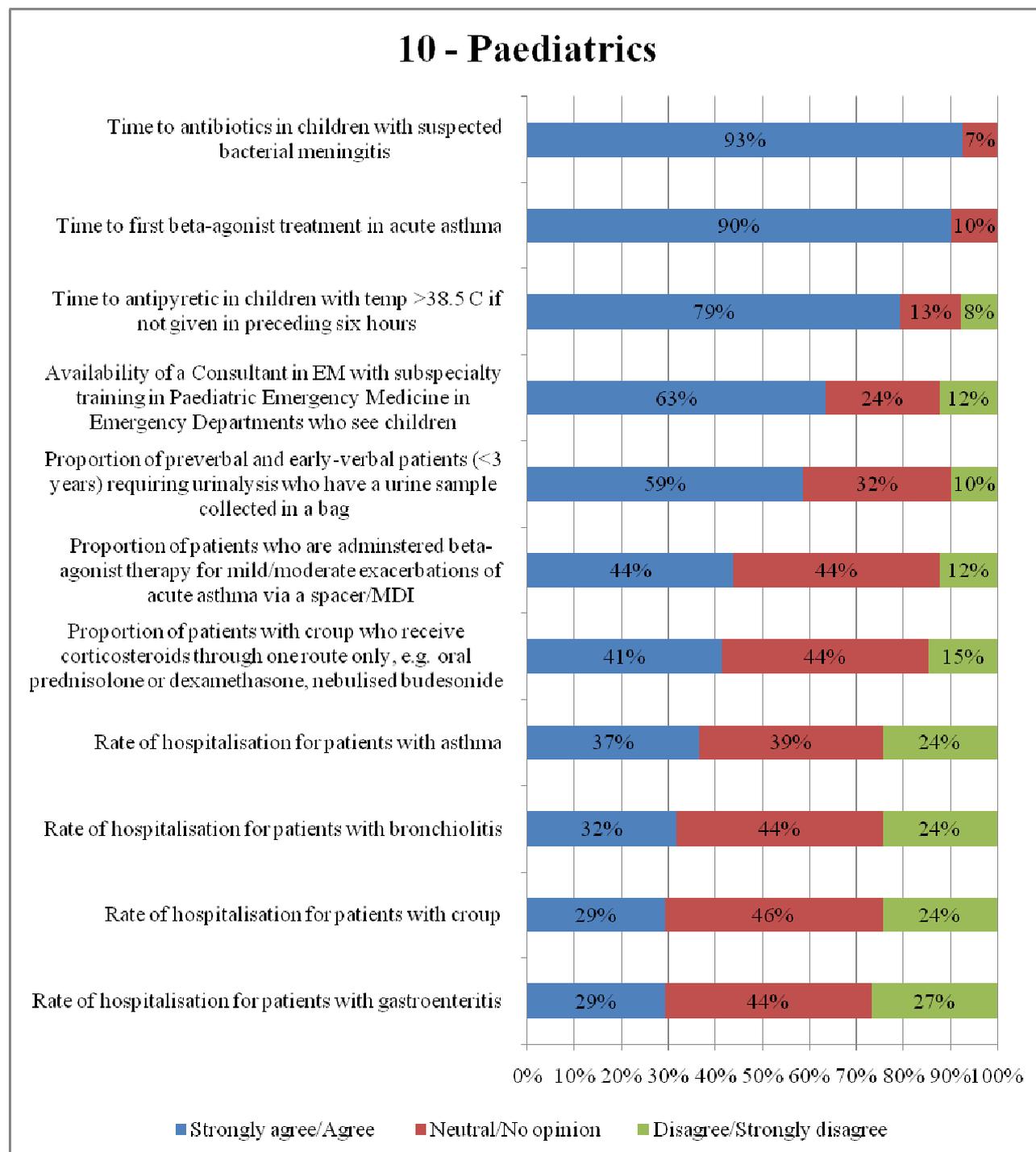


- The respondents suggested three other potential KPIs:
 1. Deaths from trauma relative to ISS score
 2. Number of CTs performed which were in accordance with the NICE Head Injury guidelines

- One respondent felt that the definition of resuscitation should be made clear in the context of the proposed KPI ‘Proportion of patients requiring resuscitation and advanced life support, treated by a consultant in Emergency Medicine’
- One respondent felt that the proposed KPI ‘proportion of patients with fractures requiring OPD follow up who receive an appointment within 3 days’ would be more appropriate if it was the ‘proportion of patients with fractures requiring OPD follow up who receive an appointment within 1 week’

Performance Indicators related to Paediatrics:

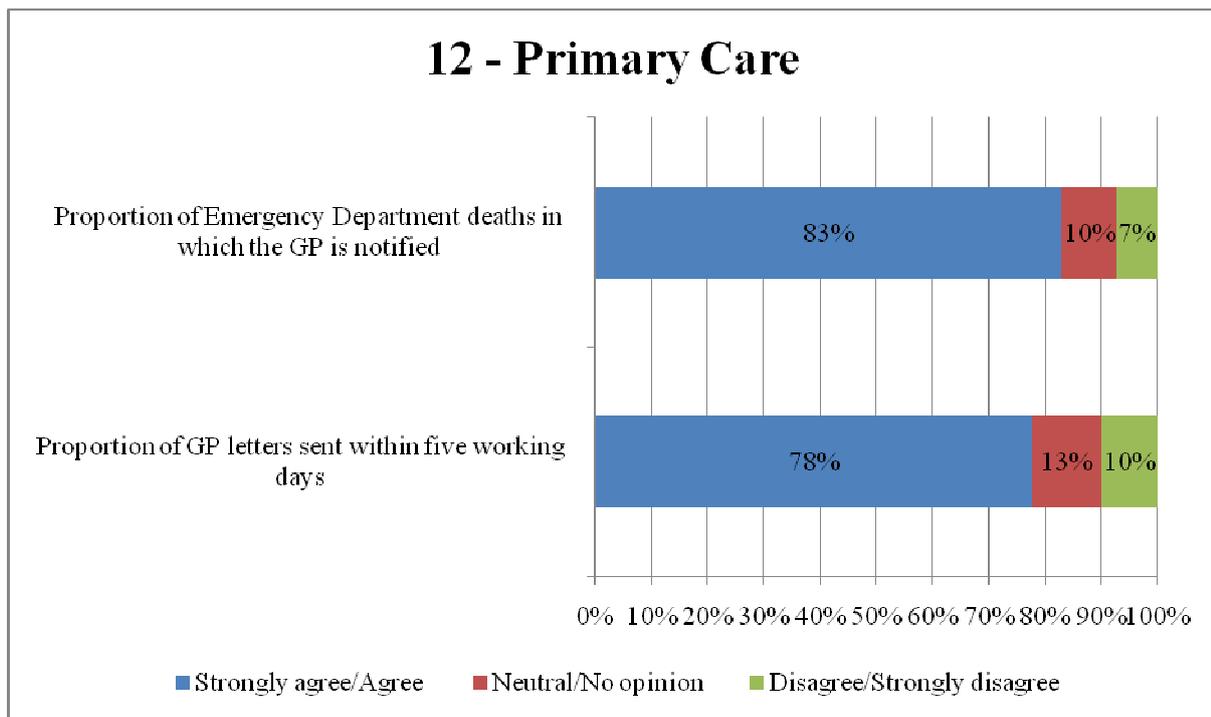
Three of the eleven proposed KPIs relating to Paediatrics achieved a high agreement score (strongly agree or agree) from at least 70% of the respondents:



- Other KPIs suggested by respondents:
 1. 24 hour availability of nursing staff with Paediatric experience / training (2 respondents)
 2. Separate area available within EDs (seeing both Adults and Children) to assess children
 3. Availability and level of specialist services and support for departments seeing both Adults and Children
 4. Use of clean catch urine samples

Performance Indicators related to Primary Care:

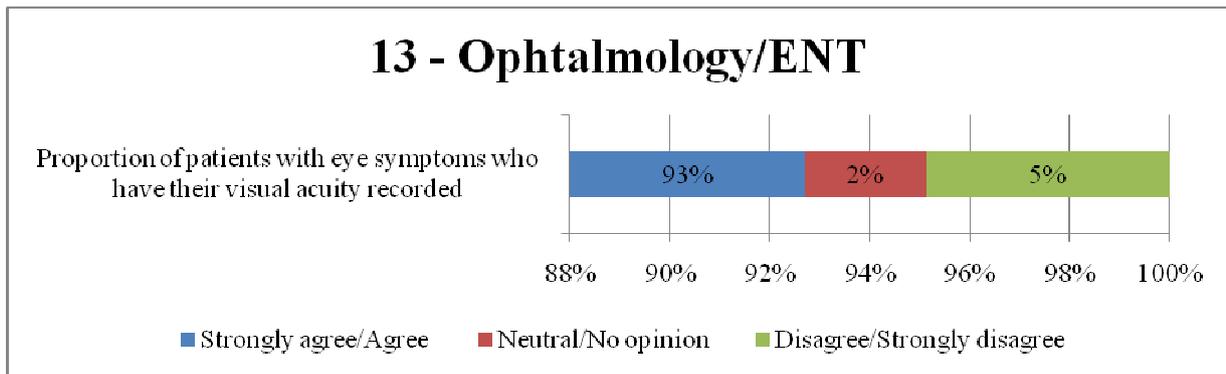
Both of the proposed KPIs relating to Primary care achieved a high agreement score (strongly agree or agree) from at least 70% of the respondents:



The proportion of discharged patients who received a written discharge summary was also suggested as a possible KPI.

Performance Indicators related to Ophthalmology / ENT:

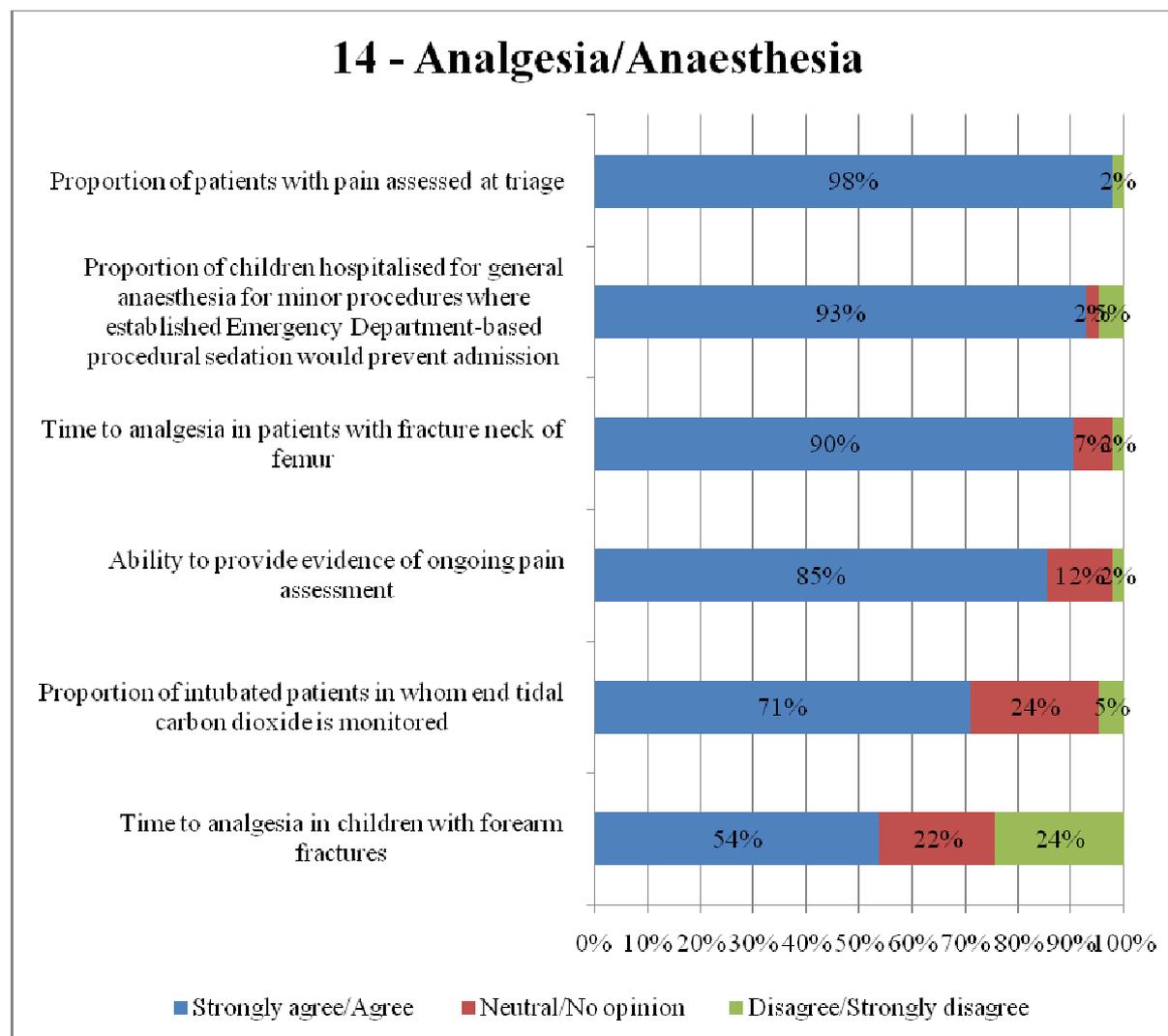
The proposed KPI related to Ophthalmology / ENT received a strongly agree or agree response from more than 70% of the panel.



No other KPIs related to Ophthalmology or ENT were suggested by the panel.

Performance Indicators related to Analgesia and Anaesthesia:

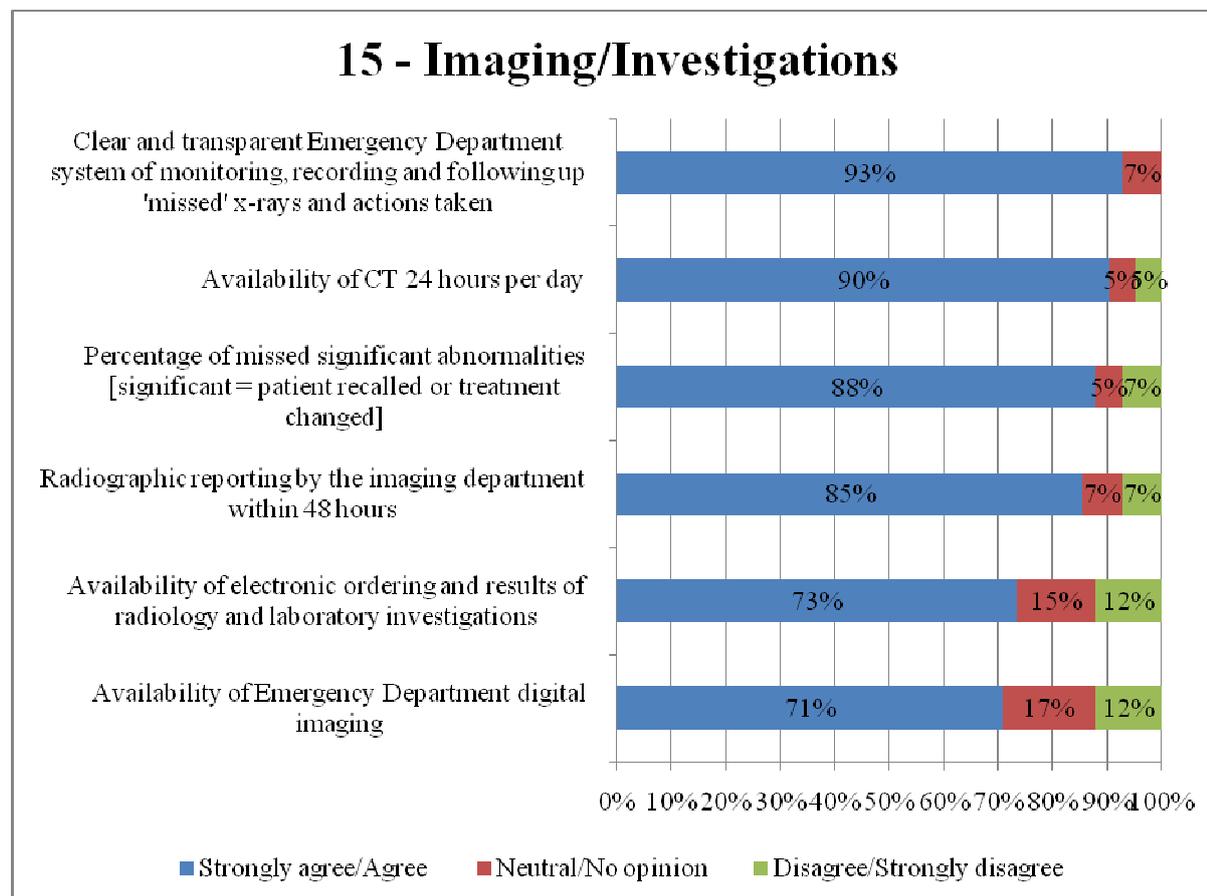
Five of six proposed KPIs relating to Anaesthesia and Analgesia achieved a high agreement score (strongly agree or agree) from at least 70% of the respondents:



- Existence of clear guidelines for the assessment, management and re-assessment of pain in the ED was suggested as a further potential KPI related to Analgesia and Anaesthesia.

Performance Indicators related to Imaging and Investigations:

All six proposed KPIs relating to Anaesthesia and Analgesia achieved a high agreement score (strongly agree or agree) from at least 70% of the respondents:

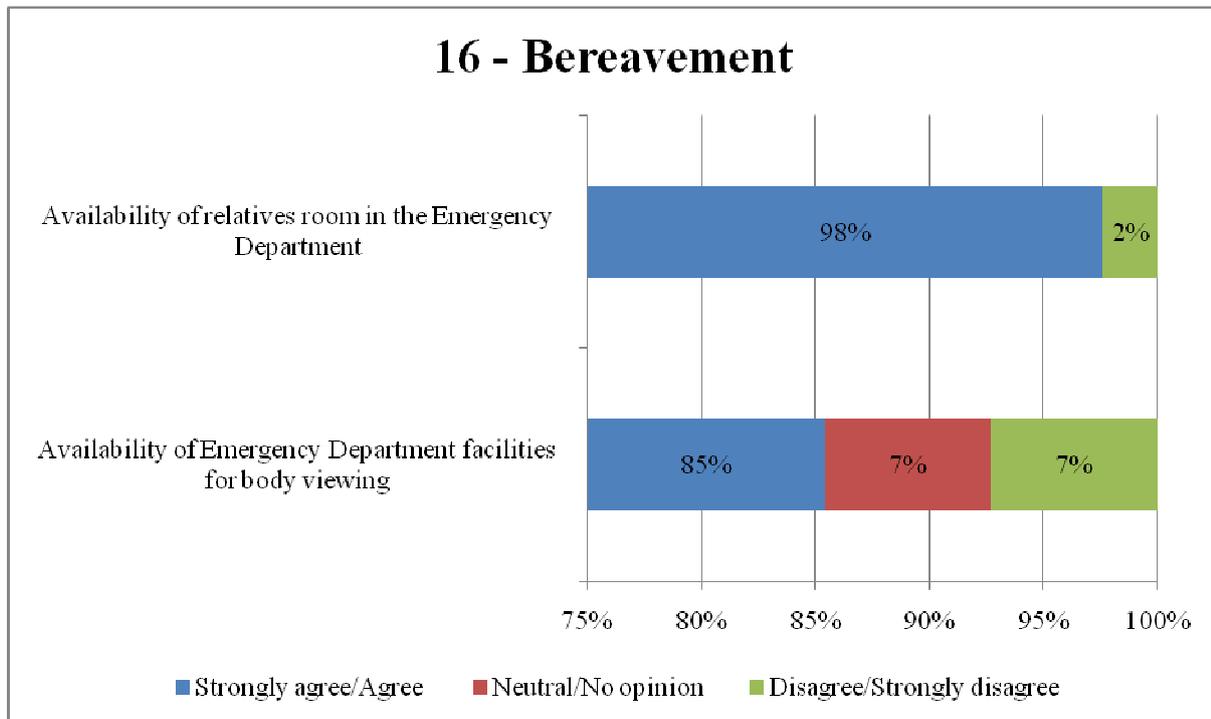


- Several other KPIs related to Imaging and Investigations were suggested by the panel:

1. Availability and usage of ultrasound in the ED (2 respondents)
2. Time from request being placed to procedure being performed
3. Proportion of patients who have a plain film x-ray performed
4. Proportion of patients who have CT /MRI / US during their ED attendance Vs inpatient stay
5. Availability of radiology reports within 24 hours (3 respondents)
6. Availability of radiology reports within 1 working day
7. Availability of advanced cardiac investigations in the ED (e.g. Echo)
8. Percentage of lateral C-spine films on which C7/T1 is visible
9. Availability of near patient testing

Performance Indicators related to Bereavement

Both of the proposed KPIs relating to bereavement achieved a high agreement score (strongly agree or agree) from at least 70% of the respondents:



- One respondent suggested that having a system of feedback from the Pathologist to the ED could represent a potential KPI.