Caveat. As the term - 7 to 14 day challenge - suggests, the exercise which is described in this report was not an academic research study. Rather the aim was to obtain rapid feedback about the characteristics of the most frequent attenders at A&E, the challenges they pose and possible responses in terms of improved services. The report summarises this feedback and because of the nature of the exercise is inevitably in essence somewhat rough at the edges and suggestive rather than precise and definitive. The aim is to initiate and take forward a conversation.

Implications. Although the challenge focuses on a relatively small group of patients, the implications in terms of quality of care are much wider. Frequent attenders ‘test the system’. Get services right for them and you will improve services for all patients.

Key points.

Response. All mainland Boards submitted a response.
Gender. Preponderance of males among frequent attenders
Age. Some concentration in 40 to 59 age group.

Diagnoses. 3 main groups:
- Alcohol and associated injuries
- Psychiatric and behavioural problems with strong element of self-harm
- Exacerbations of long-term conditions: COPD and cardiac most common
Dominant feature: multiple morbidity and intermingling of psychological and physical issues

Underlying issues: behavioural; social isolation; lack of support

Challenges: Security issues, disruption
Difficult in engaging with services
Breaches: 5% of attendances by frequent attenders involved breach of four hour target

Suggested improvements.
- Centre around better sharing of information and better co-ordination of services.
- Multidisciplinary meetings/case conferences for frequent attenders
- Potential for case management where appropriate
- Better communication with other services especially GPs.
- Need for more consistent and systematic involvement of psychiatric services
Introduction

In July 2008, the Emergency Access Delivery Team of the Scottish Government Health Directorates held two Regional Events: East (held in Fife on July 30th) and West (held in Glasgow on July 31st). Although the main focus of the events was on Winter Planning for 2008/2009, the events served to introduce the wider agenda of ‘shifting the balance of care’ within the context of urgent care.

As part of this wider agenda, the mainland NHS Boards were asked to participate in a ‘7 to 14 day challenge’ focusing on the most frequent attenders at A&E Units. The Guidance issued for the exercise is attached as Appendix 1.

In summary, Boards were asked to identify the 20 most frequent attenders at A&E over the previous six months. They were asked to produce a short (one to two pages) report outlining the salient characteristics of the most frequent attenders, the challenges which they pose and ideas for system improvements to deal with these patients.

The rationale for the challenge was as follows. It is often the case that a relatively small group of patients pose disproportionate challenges to a health care system – and meeting their needs better can bring disproportionate benefits. By definition, the most frequent attenders are not typical patients. However, the particular challenges they pose and responses to them may well point to more general issues and possibilities for improvement.

In addition, the exercise has brought to light, perhaps to a greater extent than anticipated, a range of service developments which have already been implemented and which are geared specifically to the needs of frequent attenders at A&E. These service developments need to be shared more widely.

Response

All of the 11 mainland NHS Boards who were asked have submitted a response. In addition, NHS24, although they weren’t specifically asked, have sent a description of their most frequent callers.
CHARACTERISTICS OF THE MOST FREQUENT ATTENDERS

Number of attendances

For most of the Boards responding the range of attendance for the twenty or so most frequent attenders was from 7 to 10 at the low end with the highest number ranging from 15 to 30.

NHS Greater Glasgow and Clyde measured attendances across all sites with a range from 19 attendances to 60 attendances in the six month period.

The relative burden of the most frequent attenders

NHS Dumfries and Galloway provided a full frequency distribution for the six months which allows us to put the frequent attenders into context. In Dumfries and Galloway, the 22 most frequent attenders accounted for 0.16% of the total of 14,170 patients attending in the six-month period. The 204 attendances they contributed accounted for 1.17% of the 17,477 attendances in the six-month period.

Patients with 4 to 6 attendances made up 1.16% of all patients and 4.14% of all attendances. At the other end of the spectrum, patients with one attendance in the six-month period made up 83% of all patient and 68% of all attendances.

Gender and age

9 out of 11 Boards reported more males than females in the top 20 attenders, with the balance ranging from a slightly higher number of males to a three to one imbalance towards males.

Around half the Boards who gave an age distribution showed little or no concentration in a particular age group with the other half showing a concentration of frequent attenders in the 40 to 59 age group.

Diagnoses

Appendix 2 lists the main groups of diagnoses identified by each NHS Board.

Broadly speaking, three main groups of patients were identified.

The first involved alcohol with related injuries and other problems.

The second involved psychological and behavioural issues with a strong element of self-harm.

The third involves medical conditions with COPD and cardiac problems the most common but epilepsy mentioned by one Board.
These groupings were not clear-cut with a good degree of overlap since multiple morbidity, and in particular a high co-occurrence of physical and mental problems, was a major characteristic of most patients in the frequent attender grouping.

**Mode of arrival**

The dominant mode of arrival at A&E for the most frequent attenders seems to be by ambulance with some Boards showing well over two thirds delivered this way although other Boards reported under half arriving by ambulance.

The current coding scheme makes it difficult to get a sense of patterns of initial referral. However 999 calls or self-referral by just turning up at A&E would seem to be most common. There is a small but significant role for the police (around 3-5%) but GP involvement in initial referral seems to be quite low.

**Discharge**

The proportion of attendances by frequent attenders which resulted in inpatient admission varied from a quarter to a third. More systematic analysis is required but the impression is that this does not differ too much from the average rate of admission.

**UNDERLYING ISSUES AND CHALLENGES**

As would be expected from the description of the most common diagnoses among frequent attenders, in all cases frequent attendance at A&E is a manifestation of deep-seated and long-term problems on the part of the patient. These underlying problems cover the spectrum from primarily medical problems associated with such long-term conditions as COPD and epilepsy to behavioural and psychiatric problems often associated with addictive behaviour especially involving alcohol.

A high proportion of frequent attenders were identified as having underlying social and behavioural problems. Social isolation and lack of social networks (family, friends) were identified as issues.

Security issues associated with frequent attenders at A&E were mentioned with Boards citing the necessity to involve security staff or the police. Disruption and disturbance of other patients was also mentioned.

The issue of patients being booked in to A&E and then not waiting to be seen was also mentioned.
Contacts with existing services

It is perhaps symptomatic that relatively few Boards were able to give a summary of the extent of existing contacts with other services. When such information was available the impression was that a reasonably high proportion of the frequent attenders were in contact with other services such as social work or addiction services. In a recent review of the urgent care literature, Lattimer et al (2006) cite studies showing that frequent attenders at A&E do tend to have a relatively high level of contact with other services and that opportunities for greater co-ordination of care are better than might have been imagined.

However, in the current exercise, frequent attenders were often characterised as experiencing difficulties in engaging with and maintaining contact with support services and agencies. One Board in fact mentioned that frequent attenders often gave a background of social support which had been withdrawn due to lack of compliance. Thus they were left with no alternative but to attempt to seek support in A&E.

Breaches of the 4 hour target

The level of breaches of the 4-hour waiting target in A&E is a primary marker of the quality of care in A&E Departments. Four Boards reported on the number of breaches of the 4 hour target contributed by the 20 most frequent attenders. On average, around 5% of the attendances contributed by the most frequent attenders breached the 4 hour target – which is of course significantly higher than the 1-2% figure for all A&E attenders which has been the case over the last six months.

IMPROVEMENTS IN PLACE AND PROPOSED IMPROVEMENTS

Perhaps to a greater degree than anticipated, a significant proportion of the Boards reported on specific service developments which have already been put in place to respond better to the needs of frequent attenders at A&E. In addition, some Boards reported on improved procedures which they are proposing to introduce in response to the results of this exercise.

Most of the adopted, proposed or suggested improvements concerned better sharing of information and better co-ordination of care. This was a reflection of the complex needs of the frequent attenders and the wide range of inputs from different services which they require.

Several Boards mentioned that they hold multi-disciplinary meetings or case conferences for frequent attenders. This is linked with the development of care plans for individual patients. In the case of Lothian in particular these components essentially have constituted a case management approach. (Skinner et al, forthcoming).
There was a frequent stress on better communication between the Emergency Department and Liaison Psychiatry, Primary Care, Social Work and specialist services such as Alcohol and Substance Misuse.

Underlying all these approaches was a need for shared information about individual patients.

The importance of real-time information was noted. It was suggested more than once that frequent attenders were often not 'long-term regulars' but had bursts of frequent attendance relating to a specific crisis.

IT solutions to the issue of sharing information were not mentioned. Presumably more ad hoc solutions such as eMail have been adopted.

Several responses mentioned feeding back information on frequent attenders to GPs so that a review of the patient’s needs can be undertaken in primary care.

Other responses included close links with a self-harm clinic and brief interventions for alcohol abuse.

Maintaining a list or register of frequent attenders wasn’t given a great deal of emphasis as such. However, such monitoring is implicit in other responses such as care plans for frequent attenders or sending patient alerts based on frequent attender lists to identify patients to GPs. One Board in particular stressed the value of distributing lists of frequent attenders to CHPs.

**Link with SPARRA risk prediction tool**

A welcome proportion of respondents were able to cross-refer their list of frequent attenders with lists of patients identified by SPARRA as being at high risk of emergency admission. However given that relatively few frequent attenders were over 65 and the version of SPARRA which has been widely distributed refers only to patients aged 65 and over, as might be expected only a small number of frequent attenders were found on the SPARRA list.

The most explicit organisational link between a focus on SPARRA patients and a focus on frequent A&E attenders has been made by NHS Ayrshire and Arran. Here, ‘SPARRA’ operational groups have been established in Crosshouse and Ayr Hospitals. These are attended by acute, community and social work staff who meet fortnightly to discuss the management of SPARRA patients and review any admissions of high-risk patients. The SPARRA groups also discuss case summaries of the most frequent A&E attenders – although these are not patients identified as high-risk by the current version of SPARRA aimed at patients aged 65 and over.

However, the new version of SPARRA currently being introduced by ISD Scotland covers all ages (ISD Scotland, 2008). Analysis is being carried out by NHS Ayrshire and Arran to establish the extent of overlap between the ‘all ages’ SPARRA high-risk group and frequent attenders at A&E.
NHS Greater Glasgow and Clyde also reported use of A&E frequent attender data alongside SPARRA listings.

DISCUSSION

The implications of this exercise point in two main directions.

Specific focus on frequent attenders

One the one hand they point to the need for better services for the specific group of patients – the extreme group in terms of high frequency of attendance – highlighted by the exercise. One of the most gratifying aspects of the exercise has been the bringing to light of a range of service improvements aimed at better meeting the needs of frequent attenders at A&E.

In addition this exercise itself seems to have acted as a spur to developing a more systematic and anticipatory approach to addressing the needs of frequent attenders.

In this report we have not set out in detail the specific service developments which have been implemented and proposed. Such a detailed inventory was not the aim of the exercise and would require a more systematic survey. However one example can be cited since it has received considerable publicity. NHS Dumfries and Galloway have proposed a detailed case review for those patients identified as frequent attenders. Each patient’s GP will be contacted to carry out a detailed case review aimed at identifying what other help or intervention might be needed. (BBC News, 2008)

More generally as we have seen many of the adopted, proposed or suggested improvements have involved better sharing of information and better co-ordination of care - often by means of multi-disciplinary case conferences or approaches amounting to case management where appropriate.

Wider issues: mental health

On the other hand, the implications of this exercise range much more widely. Because of the multiple nature and complexity of the problems of the patients involved, they bring to a focus a range of overlapping issues. These other agendas include mental health, the management of long-term conditions, integration with social care and relations between acute and primary care to name only some of the most salient.

Perhaps the most important overlap to highlight at the present point is that with the mental health agenda. The clearest single message to have emerged from this challenge is that most of the frequent attenders to A&E have psychiatrically related problems. This reinforces the message of a Scottish study which compared the psychiatric characteristics of frequent attenders with those of matched controls who were less frequent attenders. The results of that study broadly matched those of the
current exercise (Robertson et al. 2005). More generally, a recent study estimated that in the UK 3-5% of all Emergency Department presentations have a mental health diagnosis as primary cause and 30% as a secondary cause (Bolton et al, 2006)

A recent report by the Academy of Medical Royal Colleges outlines for England and Wales current thinking about how mental health needs should best be managed in the acute trust. (Academy of Medical Royal Colleges, 2008). A group in Scotland is currently considering a similar set of issues relating to mental health and the acute hospital.

It has already been mentioned that links are being made between patterns of frequent attendance at A&E and the groups of patients identified by the SPARRA tool as being at high risk of emergency admission to hospital. A current development is the extension of the SPARRA methodology to mental health. As part of this work, a predictive model was developed to identify patients at high risk of a psychiatrically related – defined as involving alcohol, drugs, self-harm or a mental illness diagnosis - admission to acute hospital. Such patients are also identified identified by the newer ‘all ages’ version of the classic SPARRA model (ISD Scotland, 2008). The coincidence of diagnostic patterns between the patients identified as being at high-risk of psychiatrically related admission and the frequent attenders at A&E suggest that there may well be a substantial overlap between the two groups. Thus SPARRA may increasingly offer an alternative perspective on vulnerable groups of patients with mental health needs.

**General messages**

At the most general level, this focus on frequent attenders at A&E has identified needs and service responses which exemplify several of the most salient strands of policy and strategic direction in the NHS in Scotland.

The response to frequent attenders often exemplifies the fragmented, reactive and crisis-driven orientation of current health care. However, the exercise has also brought to light a range of attempts to introduce more integrated, preventative, anticipatory and person-centred care.

In this sense frequent attenders exemplify – albeit in a relatively extreme form – many of the issues and solutions which are being addressed and implemented by other policy areas such as long-term conditions and the integration of health and social care. Frequent attenders at A&E can thus constitute a highly useful point of leverage for the more general agenda of shifting the balance of care.

**Contacts**

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References.


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Annex 1. National Emergency Access Delivery Team

7-14 day challenge for A&E Units: most frequent attenders

Background.

It is often the case that a relatively small group of patients pose disproportionate challenges to a health care system – and meeting their needs better can bring disproportionate benefits. The National Emergency Access Delivery Team is asking A&E Units to complete a 7 to 14 day challenge to identify and describe their top 20 most frequent attenders in a six month period to help generate improvements in care and benefits to the system.

Objectives.

Outcomes of the exercise should include for each local system

   a) a better understanding of the characteristics of the most frequent attenders in terms of e.g. diagnoses, age.

   b) a better understanding of the challenges to the system posed by these patients

   c) ideas as to how the system might be improved to deal better with these patients

ACTION REQUIRED.

In order to share the insights gained, each system should submit a short (1-2 pages) report covering the three outcomes. The collective messages of these reports will be summarised by the NEADT and fed back to the local teams. Reports should be submitted to Steve Kendrick by 14th August.

steve.kendrick@scotland.gsi.gov.uk
0131 244 2432

TARGET GROUP.

Local systems should identify the patients with the highest number of A&E attendances over the past six months.

KEY PATIENT CHARACTERISTICS.

By their very nature these may well be patients with complex mixes of diagnoses, arrival routes etc.

In terms of describing their characteristics the aim is not to produce a detailed data set but rather to summarise the most significant patterns.

Gender. What is the gender balance of the top 20 most frequent attenders?
**Age.** Are the frequent attenders clustered into specific age groups e.g. very old, young adults?

**Diagnosis.** Possibly the most tricky to summarise. What are the most common types of diagnosis occurring among the frequent attenders? Are behavioural or substance abuse issues are showing up disproportionately? Are patients coming in repeatedly with the same diagnosis or does it vary? What are the levels of comorbidity?

**Arrival route.** How have the top 20 tended to arrive at A&E e.g. ambulance following 999 call, walk-in, referral by NHS24, GP.

**Admission.** How often were the patients admitted after A&E attendance?

**Frequency of admission.** How many attendances did the most frequent attender have in the past six months? How many attendances did the 20th most frequent attender experience?

**PATIENT MANAGEMENT.**

**Underlying issues.** Is it possible to identify whether there are an underlying issues behind patients’ patterns of frequent attendance e.g. a long-term condition, behavioural problem, substance abuse, social issues? What were the most common underlying issues? Were these underlying issues being addressed?

**Existing services.** Is it possible to identify which services patients are already engaged with e.g. addiction services, social care?

**Breaches.** Are these patients associated with breaches of the 4-hour target?

**CHALLENGES AND POSSIBLE IMPROVEMENTS.**

What are the main issues relating to existing services raised by looking at the management of the top 20 frequent attenders?

What improvements to the service would help deal with the issues raised by this analysis?

**BONUS ISSUES.** Only do if relatively straightforward.

1. If ‘all ages SPARRA’ data is available, were the top 20 individuals identified as high risk (> 20%) by SPARRA?

2. If possible, produce a patient-based frequency distribution of attendances over the past six months i.e. how many patients with 1 attendance, 2 attendance, 3 attendance and so on.
Annex 2. Main diagnosis groups identified among frequent attenders

NHS Ayrshire and Arran
Most common presentation patterns
  1. Overdoses
  2. Alcohol
  3. Psychiatrically related

NHS Borders.
  1. Self-harm
  2. Injuries
  3. Psychiatric
  4. Gastro-intestinal
  90% identified as socially isolated; 7 regularly intoxicated;
  25-30% personality disorders

NHS Dumfries and Galloway
  1. Psychiatric/self-harm: self laceration, intentional overdose often associated with alcohol
  2. Injury (alcohol implied as common underlying factor)
  3. Minor illness (non-emergency)

NHS Fife
  1. In 40% of patients, psychological/behavioural factors were cited
  2. In 20% of patients self-harm was reported
  3. In 20% of patients, alcohol was a factor
  Approximately 25% of patients presented with a combination of the above.

NHS Greater Glasgow and Clyde.
  (High proportion of 'blank/no abnormality')
  1. 15 out of 20 had mention of alcohol and/or psychiatric related diagnosis
  2. Exacerbations of COPD and Acute Coronary Syndrome also mentioned among those admitted

NHS Forth Valley
  1. Alcohol/self-harm/psychological (40%)
  2. Self-harm/psychological (20%)
  3. Alcohol-related (20%)

NHS Grampian
  1. Alcohol related incident (often associated with patients taking own discharge)
  2. Epilepsy
  3. Non-specific chest pain
  4. Self-harm

NHS Highland. 77% with alcohol related problems and/or history of self-harm
NHS Lanarkshire.
1. Alcohol + related injuries
2. Psychiatric mainly self-harm
3. Chest plus abdominal pain
(Also mention of patients presenting but not waiting to be seen)

NHS Lothian (RIE study)
1. Alcohol related problems (46%)
2. Mental health problems (37%)
3. Chronic complaints (40%)
(12% of patients homeless)

NHS Tayside.
Roughly a third each for
a) chest/heart problems
b) behavioural problems mainly relating to self-harm
c) alcohol/substance abuse