The “Frequent Attendee” Project: A Multidisciplinary Approach to Identifying Important Factors, which Influence Frequent Attendances to the Emergency Department

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Abstract

Background: During routine emergency department (ED) patient attendance validation, a trend began to emerge, related to the reason for frequent attendance among individuals. Dialogue among staff in the department who referred to this client group as “regulars” was concerning, as it was believed that it might lead to a degree of unintentional complacency that might result in a potentially vulnerable group slipping through the net. The aim was to examine the unique profile of frequent attendees, establish preventative factors, and develop action plans to offer more specific support. A multidisciplinary team was formed to examine the profiles of these cases and develop specific action plans to address their unique needs in an attempt to prevent unnecessary admissions to the ED at Cwm Taf University Health Board, South Wales. Materials and Methods: Using a Plan–Do–Study–Act methodology over 18 months, a trend analysis identified specific demographic characteristics of age and sex of the sample group (n = 11). The main reasons for attendance were related to alcohol, substance misuse, and learning disabilities. Results: Results showed that the group included eight males, five of which fell into the 18–25 age group and attended on weekdays, with peak times between 9 AM and 5 PM. The other three men fell into the 26–35 age group and attended most frequently after 5 PM, with the peak day being Thursdays. Weekend activity was sustained among the 18–25 age group, and the 26–35 age group had the highest attendances on Sundays. Three females from this group fell into the 26–35 age group and reflected no difference in attendance patterns. Common factors of the sample were unemployment and a socially deprived location. Conclusion: The project resulted in a 75% reduction in visits to the ED from this group of patients. Networking with other hospitals in the area yielded reports that only one of the patients had changed areas and attended another department.

Keywords: Emergency department, frequent attendees, social factors

Introduction

Considerable research is available related to repeat attendance to emergency departments (EDs) throughout the UK. A study of frequent attendees identified 20.9% of EDs that met the criteria of frequency with at least one presentation per month for 6 months.[1] The peak category in this study was identified as men 35–44 years of age (with women representing 27% of the sample group) with a range of common complaints categorized as overdose, intoxication, substance misuse, and seizures. Other research spanning more than two decades identified similar causative factors among re-attendees to EDs in the UK.[2,3] The inappropriateness of these repeat attendances is subjective; however, McHale et al.[4] reported that internationally between 24% and 40% were considered inappropriate. Davies[5] highlighted that our social laws and structure or “social justice” system is upheld by the National Health Service, rendering an obligation to the patient to offer appropriate care and treatment. It is therefore imperative that we refrain from delivering a
quick fix that enables the patient to be moved on or out of the department, and instead, acknowledge the possible complexities of cause, and this cannot be addressed through emergency care alone. Within the Welsh Health Board, serving a population of 296,000, the effects on the ED performance in terms of achieving the UK 4-h target and increasing waiting times were affected by this frequently attending patient group. Departmental professionals expressed opinions that clients who frequently and unnecessarily attended contributed to poor performance, the ability to attend to more urgent cases in a timely manner, and a negative impact on staff attitudes toward them. The aim was to increase professional tolerance and remove complacency toward frequent attendees, with more focus on the contributory factors and how to identify root cause and manage problems. This quality improvement project focused on examining the unique profile of frequent attendees, establishing preventative factors, and developing action plans to offer more specific support through the introduction of a new system of team working through the development of a specific multidisciplinary team.

**Materials and Methods**

The Cwm Taf University Health Board in which the study was conducted had a capacity of 430 beds and served an annual average of 300,000 adult and pediatric patients.

During the summer of 2013, routine evaluation of patient attendance documents was undertaken to ratify data and identify any breaches in performance as part of an audit and improvement exercise, using a Plan–Do–Study–Act quality improvement methodology through a series of eight phases. These phases examined the cause and effect, underpinning the reasons for frequent repeat visits to the ED. Through a multi-voting exercise, the team developed a Pareto chart, ranking the top five reasons for visits. An action plan with clear time frames was prepared for the group of frequent attendees based on the main problem areas, and assigned responsible personnel were responsible for implementation of actions and biweekly updates. A Gantt chart was developed to help this team of key stakeholders stay on target during the 18-month project. Patterns of attendance emerged from a small sample group of 11 (8 male and 3 female) patients. This led to a more in-depth investigation to determine the reasons for previous attendances. Dialogue among staff referred to these patients as “regulars” who frequently visited the ED. The preliminary examination of 11 clients showed their attendances to the ED over an 18-month period totaled 330 visits. It was noted that this group shared common problems related to alcohol misuse, drug misuse, and mental health problems, these patterns of attendance reasons were identified using a cause and effect map. A process of multi-voting among the multidisciplinary group of stakeholders was shown on a Pareto chart. This ranked the top three patterns of attendance trends. The “Frequent Attendees” project team was established to discuss similarly complex patients with records of high numbers of attendance to the ED. The plan was to discuss these cases between key professionals and develop action plans designed to address the underlying problems and reduce attendance to the department. For those with more complicated issues, a regularly updated narrative would be entered onto the electronic patient data system that would be accessible to all staff who was dealing with the specific clients.

Care plans and progress notes were developed and scanned into the patient electronic data system to assist other staff in the event of a repeat attendance. The team, in collaboration with informatics, developed a red flag alert icon in the system, allowing all staff to immediately review the care plan and progress of the patient at the time of each visit to the ED. The visits, if considered unnecessary, would then be escalated to the key personnel assigned to manage the case.

Through a monthly collaborative focus group meeting, the model was refined and improvements were made to support the unique needs of the patient group. The team concurred that individual care plans should be regularly evaluated and the patient group, by virtue of their complexities, would require sustained support to reduce and hopefully prevent repeat attendance to the ED. Understanding the individuals who have the highest rate of attendances was essential to identifying potential triggers linked to repeat attendances. These triggers were incorporated in the unique care plans developed for the group examined throughout the study.

**Results**

Nine (89%) of the 11 frequent attendees, with a median of 50 visits per patient during the 18-month period, were related to alcohol and substance misuse incidents.

The patient’s age range was between 18 and 75 years, with 8 of the 11 being male, white, unmarried, unemployed, and from a demographically similar locality. The three female clients were aged between 30 and 45 years, representing 27% of the sample group, and were married and unemployed; patterns of visits were related to alcohol misuse and domestic violence. One of the male patients with learning disabilities had no drug misuse issues but raised concerns related to poor health and related unmet needs. On the basis of the information obtained from the preliminary examination of the data, a decision was made to examine this client group in more detail.

A further analysis of frequent attendances showed that during the 18-month period selected, there were 3739 adult attendances. Of these frequent attendances, 412
Caswell: “Frequent Attendee” project

Figure 1: Number of visits by frequent attendees per age group on weekdays, 5 PM to 9 AM.

Figure 2: Number of visits by frequent attendees per age group on weekdays, 9 AM to 5 PM.

Figure 3: Number of visits by frequent attendees per age group on weekends, Friday, 5 PM, to Monday, 9 AM.

now he felt that his issues were finally being addressed by a large team of professionals working together.

**DISCUSSION**

Through patient profiling, evidence exists supporting the link between social deprivation and an increased number of visits to the ED. Of the group examined in this study, 82% were from a socially deprived location. A comparison was made between the areas of this study based on the data from a local area summary statistics report,[6] which compared the locality of South Wales to 22 other local authorities. The GDHI (gross disposable household income) per head for the region of this study was the lowest among four similarly populated geographical areas in the regions of South Wales. The average weekly earnings per head were the fourth lowest among the 22 areas examined. The locality of South Wales had the third highest rate of children living in workless households; however, this had fallen between 2004 and 2011. Nonetheless, the gap has increased from 3.7 percentage points above the Wales average in 2004[6] to 2.9 percentage points above the regional average in 2012. The number of adults referred for alcohol treatment in South Wales was twice the national average and represented the highest of all localities in recent years. An interesting comparison was made between this area and that of Somerset (Somerset Practice Board Commissioning Group[7]) in terms of demographics and social deprivation figures, which were linked to an increase in repeat attendance to the ED. Common themes were listed as lack of knowledge and understanding about their condition, disengagement with primary care providers, and inadequate community support for vulnerable groups such as alcohol and substance misuse issues.[8,9]

Chaput and Lebel[10] identified demographic profiles of patients with multiple attendances who were diagnosed as having mental health issues. Their recommendation supported the introduction of a community outreach service for vulnerable groups. This was supported by a research conducted by Okorie et al.,[11] identifying shortfalls in community mental health support. Some speculation had arisen relating to insufficient general practitioner service use/availability to that of increased ED attendances.[12]
Caswell: “Frequent Attendee” project

Martin et al.[13] however presented evidence to suggest that repeat attendees had the highest number of primary care appointments. McHale et al.[4] reported an international study that suggested between 24% and 40% of ED visits were inappropriate, and a local study in England of two health boards noted that 16.8% of their attendances were inappropriate; another study in London indicated 78% of attendances were avoidable. McHale et al.[4] examined the demographic and temporal relationship to attendances that were considered avoidable. They concluded that there was indeed an increase in the number of visits among men over 25 years of age from a deprived socioeconomic area. They indicated an increase in visits after 7 pm, which was linked to individuals not wishing to take time off work and inadequate primary care access out of hours. This has been challenged in the earlier study by Martin et al.[13]. A study by Rudge et al.[14] suggested that the client group from a socially and demographically deprived area was less likely to be satisfied with primary care and was reluctant to travel for assistance. This was supported by the studies carried out by Campbell[15] and Ashworth and Armstrong.[10] A broader search of the literature noted that Moineddin et al.[17] undertook a study in Ontario, Canada, which showed similarities to those of the UK. Their assessment of attendances related to Resource Utilization Bands in which they examined age, sex, education, and socioeconomic variables that appeared to resemble studies of the UK. They linked inadequate primary care access to increase in ED attendances. Qualitative studies by Pope et al.[18] linked increased use of emergency care to psychosocial limitations and associated comorbidities. They recommended the need for a more robust community health support/treatment plan to address this problem. One might suggest that the reference to inappropriateness of an individual’s attendance is subjective and has been the subject of debate running through the literature examining the burden on the EDs both nationally and internationally. This very subjectivity was underlined by Saunders[19] who concluded that the patient’s perception of the appropriateness of their attendance to EDs remains a challenge. One could therefore argue that a more integrated system of working between primary and secondary care providers could be developed to capture this client group in a more cohesive way.

The results of our study support the suggestion that frequent attendance to the ED is linked to social deprivation. This connection was evident during the profiling of these specific client groups through a grounded theory approach.[20] Research was examined spanning from the early Platt Report of 1962,[21] and although a plethora of work has been undertaken, there remains a gap in the system that has failed to address the problem of repeat attendance. The major recommendation from this study is related to a more robust network that links primary and secondary care professionals to engage in a cross-working system that would capture this client group to channel valuable resources into one common route. The “Frequent Attendee” quality improvement project revealed that health-care professionals from various teams such as community psychiatry, social work, and primary care appeared to be working in isolation with little knowledge available to those at the secondary stage of emergency care.

This paper focuses on the development of a model to identify potentially vulnerable adults and examine ways to provide support that would reduce their need to re-attend the ED. The initial success of this group was implemented by the senior nurse of the ED within the University Health Board. The team now comprises an ED consultant, director, manager and lead nurse for project, Welsh Ambulance Service representative, mental health team, consultant social worker, and drug and alcohol lead. As a result of the project’s success, a new pathway is being developed with CDAT (community drug and alcohol) to expedite the contact for this patient group along with the representative from primary care services.

To date, the team celebrated a number of successful outcomes that resulted in timely support for patients and a marked reduction, and in some cases, zero repeat visits to the ED.

With the enthusiasm for the project, several suggestions for extending the scope of clients had been examined. Although this engagement was welcomed, there was a danger of taking on too great a challenge too soon. It was therefore necessary to maintain clear focus and control.

It was important to ensure that a robust approach was applied to work through the clients to prevent the group from becoming overwhelmed with new patients, which would also run the risk of missing important patients and events related to them and their progress.

This quality improvement project produced results that have provided important local information for EDs within a South Wales Health Board serving more than 300,000 patients. Although the findings can be related to research evidence, its immediate implementation in other EDs requires more work to establish contributory factors that may be particular to a specific social demographic profile.

**Conclusion**

Since the development of the “Frequent Attendees” team and its success, the model has been introduced across the organization as an example of innovation and best practice. Acknowledged as supporting patient’s best interests, the project has been commended during Clinical Risk and Governance meetings and was presented at Grand Rounds. The project has changed the perspectives of staff throughout the organization and allowed them to see beyond the superficial presentations alone. Knowing that there exists
a team of professionals to whom this patient group can be escalated has proven reassuring to staff. It has been instrumental in strengthening teamwork and follow-up outcomes, which are shared with the frontline staff. The end product of this quality improvement project has been professionally rewarding and encouraged staff to investigate reasons behind repeated attendances, which has also inspired the multidisciplinary team. The next stage of the study would benefit from mapping and examining the patient’s new journey from their unique perspectives. This may be achieved through interviews and patient questionnaires, which would provide rich data to measure the success of the project.

In summary, success seldom happens overnight, and this project allowed a busy group of staff to see beyond their heavy workload and understand that by scratching through the surface, one often discovers a more complex core that causes individuals to repeatedly seek emergency medical care.

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