An Audit of Did-Not-Attends (DNA) in an Infectious Disease Outpatient Service of a Tertiary Level Hospital in Ireland

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INTRODUCTION

| | HIV and Hepatitis B, requiring active | surveillance, pose | challenges when | | | |
|---|---|---------------------|------------------|--|--|--|
|) | patients miss follow-up appointments, | potentially leading | to poorer health | | | |
| | outcomes, and risk of critical illnesses. | | | | | |

While HSE guidelines suggest removing patients from the waiting list after one missed appointment¹, premature discharge from an Infectious Disease (ID)

METHOD



Retrospective audit of patients attending the HIV and Hepatitis B Clinic at Cork University Hospital from January 2021 to January 2022, with a total of 2,986 patient appointments assessed.



Details of appointments and patient demographics were extracted from medical records, and co-morbidities were assessed from patient electronic letters.



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clinic presents potential public health risks.







RESULTS







Weather information (temperature range, rainfall, weather alerts) were retrieved from the Irish Meteorological Service.



The primary outcome was non-attendance rate, and logistic regression in R studio explored the association between patient age and clinic attendance.



COVID-19 restrictions were in place during the data collection period, and while the findings may not be entirely current, we expect them to remain broadly relevant. No of patients

250

200

No of DNA

IV. Frequency of DNA

From the pool of 623 missed appointments, the 150 frequency of DNA was examined. 396 patients were involved in DNAs- 62% had only DNA once, and 38% 100 DNA more than once. 50

V. Co-Morbidities

Types of Co-Morbidities (Hepatitis B Cohort) – no (%)

Number of patients who DNA

300

250

200

150

100

50

Attendees DNA

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I. Overall Monthly Breakdown

The busiest clinic month was September 2021 with a total of 290 scheduled visits. June 2021 had the greatest number of DNA with rate of 33.6%, followed by July 29%, August 27%, then January'22 at 26.5%.

In contrast, the lowest DNA was April 2021 with 10.9%, closely followed by February 2021 at 11.3%.

Demographics of DNAs



| | No of Patients (Hepatitis and HIV Clinic) | Hypertension 15 (7.3) | | Types of Co-Morbidities (HIV Cohort) – no (%) | |
|----------|---|---|----------------------|---|------|
| 200 - | | Hypercholesterolaemia | 7 (3.4) | Hypertension | 21 (|
| | | Psychiatric Disorder | 2 (0.99) | Hypercholesterolaemia | 25 |
| | | (Depression/Anxiety/BPAD) | Psychiatric Disorder | 24 (| |
| 150 | | Diabetes | 5 (2.4) | (Depression/Anxiety/BPAD) | 15 |
| 150 | | Raised BMI | 3 (1.5) | Baised BMI | 5(|
| | | Respiratory conditions (COPD/Asthma/OSA) | 3 (1.5) | Respiratory conditions (COPD/Asthma/OSA) | 5 (|
| 100 | | Malignancy | 4 (2) | Malignancy | 6 (|
| 100 | | Renal Diseases (CKD/Renal transplant) | 3 (1.4) | Renal Diseases (CKD/Renal transplant) | 4 (2 |
| | | Epilepsy | 2 (0.98) | Epilepsy | 2 (1 |
| 50 | | Endocrine Diseases | 1 (0.49) | Endocrine Diseases | 5 (|
| | | Liver Diseases (Cirrhosis/Steatosis) | 7 (3.4) | Liver Diseases (Cirrhosis/Steatosis) | |
| | | Perinheral Vascular Disease | 0 | Peripheral Vascular/Cerebrovascular Disease | 7 (3 |
| 0 | | Tuberculosis | 4 (1 96) | Tuberculosis | 10 |
| | 1922 JUL 922 JULAS AUT 22 5ULA 6ULS INTER | Psoriasis | 2 (0.98) | Psoriasis | 2 (1 |
| γ | Number of Co-Morbidities | | | | |

55% had only one co-morbidity (HIV/Hepatitis B), with a decreasing trend as the number of comorbidities increases. The tables outline the types of co-morbidities among patients living with Hepatitis B and HIV that were observed in this cohort.

V. Distance & Weather

The median distance between patients and clinic was 28 kilometres. 55% of patients who DNA were living between 0 to 30 kilometres away from the hospital, followed by 16% living between 31 to 60 kilometres away, 8% between 61 to 90 kilometres away, and 21% more than 91 kilometres away.

Weather variations did not seem to particularly impact DNA rates as there were a number of clinics with high DNA rates (range of 4% to 50%), despite no weather variability with temperature, rainfall or presence of storm alerts.



No of Patients

Frequency of DNAs

21 (10.9) 25 (13)

24 (12.5)

15 (7.8) 5 (2.6)

5 (2.6)

6 (3.1) 4 (2.08)

2 (1.04) 5 (2.6)

7 (3.64)

10 (5.2)

2 (1.04)

Majority (59.6%) of the DNA patients were male. A predominance (54.5%) of patients were in the age group of 31 to 45 years old. 94% were return visits, and 6.1% first visits.

CONCLUSION

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Adherence to ID clinic appointments remain suboptimal with an overall 21% DNA rate.

The highest DNA rates were observed during the summer months, likely due to good weather or holiday season leading to missed appointments. Adverse weather and greater distance from clinic did not appear to affect clinic attendance negatively. A notable proportion of patients who DNA (21%) lived within a 5-kilometre radius from clinic.

Patient age significantly predicted clinic attendance (p < 0.0001), while gender did not (p = 0.652). Younger age groups and summer clinic visits may indicate a cohort suitable for targeted interventions.

There is a considerable amount of opportunity to help minimise DNAs in clinic, especially among this vulnerable cohort in which surveillance is crucial.

Predicted Probability of Clinic Attendance by Age



VII. Further Analysis

The association between patient age and clinic attendance, while controlling for gender, was examined with a logistic regression model. The analysis revealed that age was a significant predictor of clinic attendance (p < 0.0001, Coefficient 0.023178).

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In contrast, gender was not a significant predictor of attendance (p=0.652). Overall, the results suggest a significant positive association between age and the probability of clinic attendance, independent of gender.

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