

## **Covid-19 and the Impact on Referrals to Psychiatry in those 65 years and Older**

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### **Abstract**

#### ***Aim***

To measure the impact of Covid-19 on the mental health of those 65 years and older, referrals to psychiatry in this Emergency Department (ED) were examined. This was likely the 'tip of the iceberg' in difficulties in this cohort and may predict patterns in a future 'tsunami' of cases.

#### ***Methods***

A review of referrals from ED in those  $\geq 65$  years was conducted, from April to September in 2019 and 2020. Number of presentations, referral reason, alcohol issues, presentation method and assessment outcome were examined.

#### ***Results***

From May 2020, there was increased referrals in all ages, except those aged 65 and older. Only 6.7% of referrals were  $\geq 65$  years in 2020 (11% in 2019), with more referred for anxiety, suicidality and overdose, with no BPSD (behavioural and psychological symptoms of dementia) referrals recorded. There was an increase presenting with psychosis secondary to mental illness, alcohol issues and brought by emergency services, with a decrease in those linked with services.

#### ***Conclusions***

There was a probable unmet burden of psychiatric needs in this age-group with potentially increased distress and reduced supports, in less presentations. Difficulties providing services during this period and lack of presentations such as BPSD, raises concerns for older patients and a future 'tsunami' of presentations.

**Keywords:** Covid-19, Emergency Department, Old Age Psychiatry

## Introduction

With the outbreak of Covid-19 in 2020 and the ongoing associated restrictions, there is growing concern about the effect of the pandemic on the mental health of the general population<sup>1</sup>. It is estimated that one in five people globally, have experienced increased psychological distress due to the pandemic<sup>2</sup>. There is a predicted 'tsunami' of psychiatric issues after the Covid-19 pandemic subsides, with the contribution of post viral factors not fully known<sup>3</sup>. Emerging evidence suggests significant neurological and psychiatric morbidity, in the six months after infection with Covid-19<sup>4</sup>.

Older persons with complex medical and psychiatric disorders, including cognitive impairment, require special consideration<sup>5</sup>. Not only is their risk of mortality much higher, they are disproportionately affected by requirements to restrict their movements, worsening social isolation<sup>6</sup>. Older residents in long term care facilities, suffered the highest rates of mortality and were often restricted to their rooms, reducing staff's ability to assist those with behavioural and psychological symptoms of dementia (BPSD)<sup>7</sup>.

Virtual consultations during the pandemic have been helpful in certain cohorts, but older persons may struggle because of cognitive impairment, hearing difficulties and difficulties with technology<sup>8</sup>. Old age psychiatry depends on strong partnerships between primary and secondary care, with a reliance on community services, which have all been affected by restrictions<sup>9</sup>. A recent United Kingdom (UK) survey found psychiatrists were seeing an increase in emergency cases, with a fall in routine appointments, suggesting fears such as infection risk among patients were keeping them away<sup>10</sup>. There is evidence from an Irish perspective, that emergency presentations to EDs (Emergency Departments) reduced during the initial Covid-19 restrictions, indicating possible unmet psychiatric needs<sup>11</sup>.

In primary care, there is also evidence of a drop in patients attending with psychiatric concerns early in the pandemic, with less than a quarter of the expected rate of referral to mental health services in the UK<sup>12</sup>. In addition, there is a continuing concern that the Covid-19 pandemic has resulted in increased alcohol consumption among the general population, due to isolation and stress, which may place further strain on services during and after the pandemic<sup>13</sup>.

The ED of St. Vincent's University Hospital (SVUH), is the major trauma centre for the South East Dublin region, serving a population of over 300,000, with over 55,000 ED attendances every year<sup>14</sup>. It is the only ED which encompasses South Dublin, Dun Laoghaire and East Wicklow mental health catchment areas. This population consists of roughly 60,000 people over the age of 65 years, all of whom are served by this ED for urgent psychiatric assessment.

## **Methods**

It has been widely assumed that the Covid-19 pandemic has had a negative influence on the mental health of older persons in the population and may have altered the manner in which this cohort are presenting to psychiatric services. In order to assess the nature of presentations following Covid-19 restrictions, the authors audited the psychiatric referrals for those 65 years and older in the ED of SVUH, from April to September 2020. The baseline for measurement, was the rate and nature of presentations, from the same period in 2019.

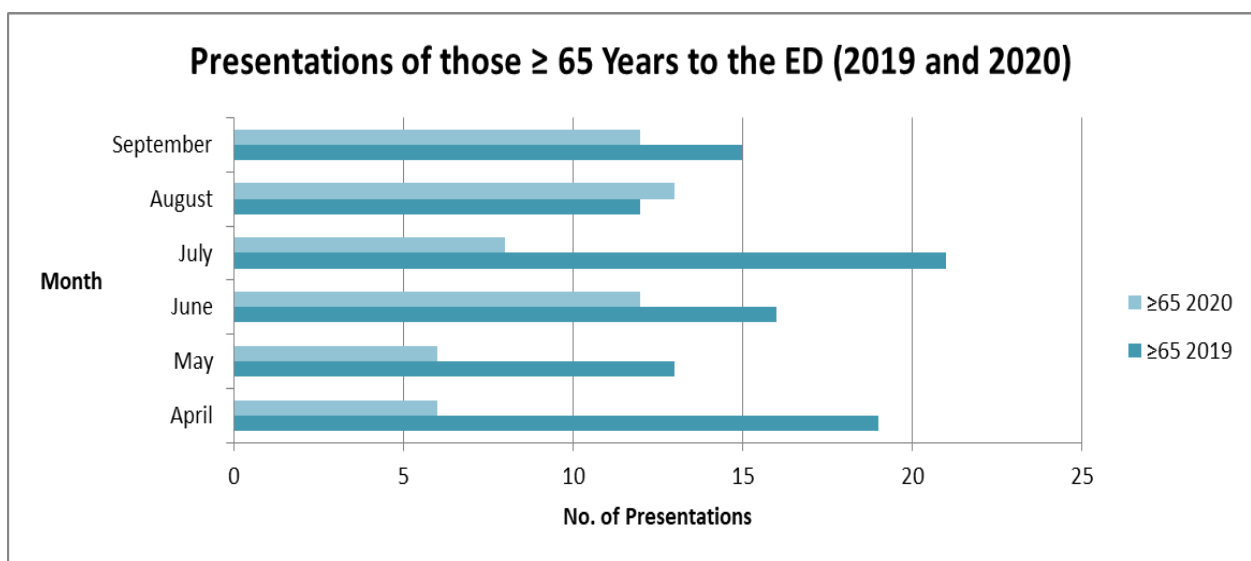
Anonymised data on presentations to the ED in those 65 years and older, for the period from both years, were available from the department's electronic database. Specific emphasis was then given to the number of presentations, reason for referral (with exploration into suicidal ideation, self-harm and psychosis), incidence of alcohol issues (harmful use or dependence), method of presentation, length of stay and outcome following assessment. In addition to those aged 65 years or older, the number of overall presentations to the ED and the number of referrals to psychiatry under 65 years were also measured, to provide context.

## **Results**

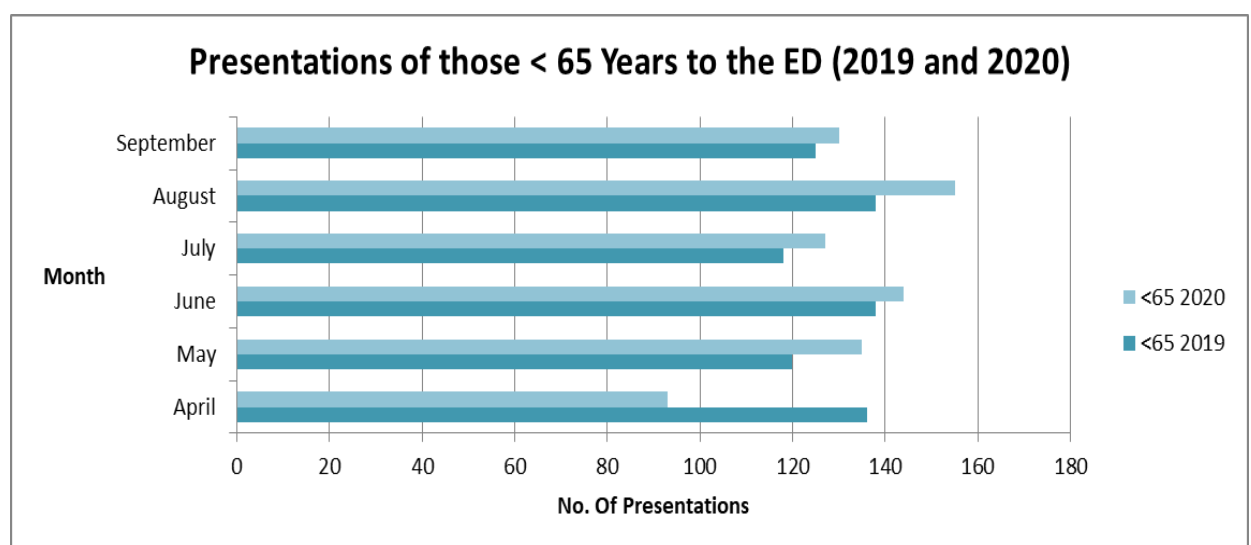
During April to September 2019 there were an overall total of 30,162 presentations to the ED, which fell by 2,245 during the same period in 2020. The most significant drop in presentations was in April 2020, where the number fell by 1,363. For those referred in the ED for psychiatric assessment (all ages), the number dropped from 871 in 2019, to 841 in 2020. However, there was an increase in presentations in those under 18 years, where the figures increased from 37 in 2019 to 48 in 2020.

It was only in those who were 65 years and older, that there was a reduction in presentations, with a decrease from 96 (made by 88 individuals) in 2019 to 57 (made by 42 individuals) in 2020. In 2019, those 65 years and older accounted for 11% of psychiatric referrals (6.7% in 2020). Other than the month of August in 2020, the data showed this reduction in referrals compared to 2019 was consistent in the other months (see Figure 1). On the contrary, for those less than 65 years, every month other than April showed a larger number of psychiatric referrals in 2020 than in 2019 (see Figure 2).

**Fig. 1:** Psychiatric Referrals in the ED for those  $\geq 65$  years in 2019 and 2020.



**Fig. 2:** Psychiatric Referrals in the ED for those  $< 65$  years in 2019 and 2020.

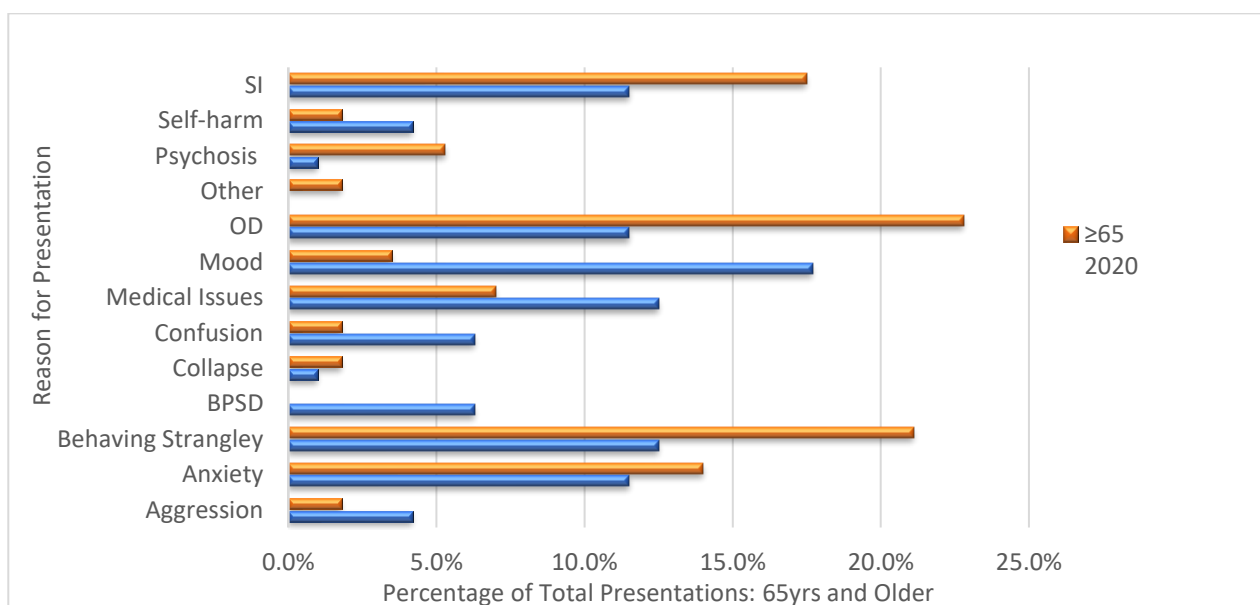


Reason for referral to psychiatry for both years was also examined and the distribution in Chi-Square Tests was significantly different between the two years (Fisher's Exact Test:  $p= 0.013$ ). Anxiety, suicidal ideation (SI) and overdose (OD) were the most common reason for referral to psychiatry in ED in those 65 years and older, in both 2019 and 2020 (See Figure 3).

However, in the 2020 period, the proportion referred to psychiatry for anxiety increased by 2.5% (11.5% in 2019 and 14% in 2020), SI by 6% (11.5% in 2019 and 17.5% in 2020), OD by 11.3% (11.5% in 2019 and 22.8% in 2020) and psychosis by 4.3% (1% in 2019 and 5.3% in 2020). For psychosis, symptoms were deemed to be secondary to mental illness after assessment in all cases in 2020 (only 38% in 2019). In other cases in 2019, such symptoms were attributed to an organic cause, such as delirium.

Conversely there was a reduction in the number of referrals for mood (14.2%: 17.7% in 2019 and 3.5% in 2020), aggression (2.4%: 4.2% in 2019 and 1.8% in 2020) and confusion (4.5%: 6.3% in 2019 and 1.8% in 2020) in the 2020 period. There were no referrals to psychiatry in ED recorded for BPSD in the 2020 period, as demonstrated in Figure 3.

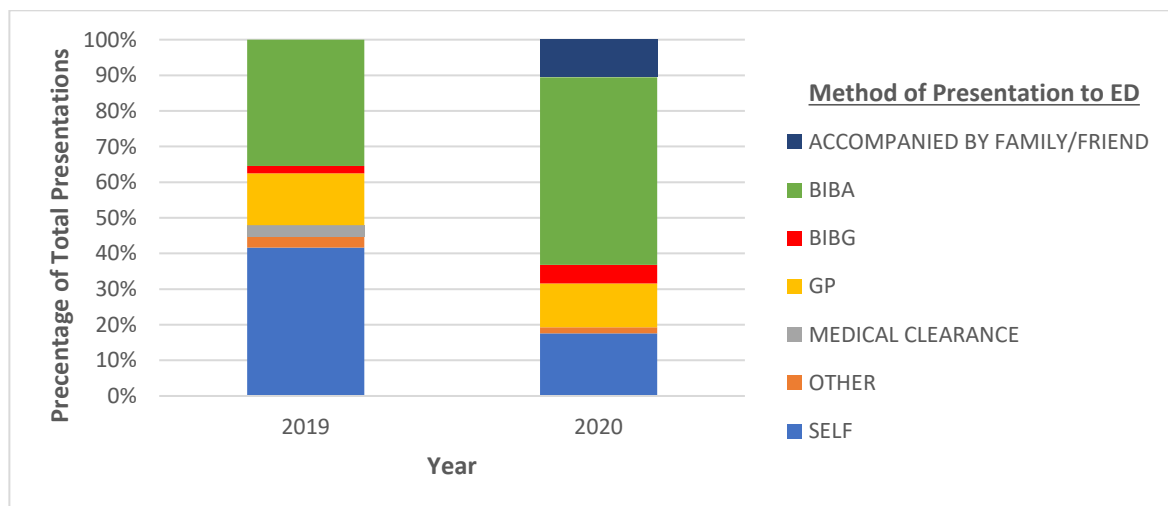
**Fig. 3:** Reason for Referral in those  $\geq 65$  years in the ED. 2019 and 2020 Comparisons (Percentage of Total Presentations of those 65 years or older).



There was an increase noted in the number of persons 65 years and older arriving intoxicated to the ED in the 2020 period (14% in 2020 and 4.2% in 2019), which was significant on Chi-Square Tests (Fisher’s Exact Test:  $p=0.023$ ). Following assessment, there was also an increase found in the number with identified alcohol issues (harmful use or dependence) in 2020 (31.6%), compared to the 2019 period (14.6%), which was also significant on Chi-Square Tests (Fisher’s Exact Test:  $p=0.004$ ).

There was a significant difference noted in the method of presentation in this cohort, when tested with Chi-Squared Tests, between the 2019 and 2020 period (Fisher’s Exact Test:  $p<0.001$ ). There was an increase in patients brought in by ambulance (BIBA), which was 52.6% in 2020 and 35.4% in 2019. There was also an increase brought in by the Gardai (BIBG), which was 2.1% in 2019 and 5.3% in 2020. There was a decrease noted in those referred by their GP (General Practitioner) (13.2% in 2019; 7.8% in 2020). The percentage of those who self referred also decreased between the two years, which was 41.7% in 2019 and 17.5% in 2020 (See Figure 4).

**Fig. 4:** Method of Presentation of those  $\geq 65$  years to the ED in 2019 and 2020.



In 2020, 26.3% of persons presenting to the ED were linked with a community mental health team (CMHT) (70.2% not linked; 3.5% not known), compared to 33.3% who were linked in 2019 (62.5% not linked; 4.2% not known). This was less, but not found to be significant when tested with Chi-Square Tests (Fisher’s Exact Test:  $p=0.4$ ). The average length of stay for persons 65 years or older in the ED for the 2020 period was 8.6hrs, compared to 17.4hrs in the 2019 period.

Outcomes from the assessment in ED were also examined, with a notable increase in those 65 years or older referred for addiction services in 2020 (5.3% in 2020 compared to 0% in 2019). 12.3% of patients 65 years or older required a psychiatric admission following their assessment in 2020 (13.5% admitted in 2019). There was a slight drop in those subsequently referred to their GP in 2020 (17.5%), compared to 20.8% in 2019. There was also a slight decrease referred to a CMHT for out-patient follow up following their assessment, which was 38.6% in 2020 and 39.6% in 2019. Overall, when tested with Chi-Squared tests, there was no significant difference between these various assessment outcomes (Fisher's Exact Test:  $p=0.310$ ).

## **Discussion**

There is evidence from these findings, that there was a shift in the pattern of referrals to psychiatry in the ED of SVUH in this cohort in the 2020 period during the Covid-19 pandemic, compared to 2019. The authors postulate that this was the 'tip of the iceberg' in relation to psychiatric difficulties in this age group and may help predict patterns in a future 'tsunami' of cases.

There was a marked decrease in presentations and psychiatric referrals in the ED during April 2020 (compared to April 2019), which was likely a direct result of the initial Covid-19 restriction measures. Each month after April 2020, saw increased psychiatric referrals compared to 2019 for those under 65 years, but a reduction each month in referrals for those 65 years and older (other than August 2020).

There was also an increase in referrals in this age group for anxiety, OD, SI and psychosis in the context of major mental illness. This demonstrates potentially higher levels of distress in a smaller cohort of individuals and may be a reflection of the psychiatric issues in older persons in the community. There was a complete absence of referrals in ED for BPSD and a reduction in those referred with confusion in 2020.

For patients with dementia, the restrictive measures implemented during the pandemic is likely to have adversely affected patients and their caregivers, with changes in their regular support systems and routine.

It is possible, that there was an increased resolve and family resources (with home working). Alternatively, these patients may have been rapidly admitted medically, due to Covid-19 related care pathways.

The changes in method of presentation to the ED (more brought by ambulance and Gardai), could suggest reduced contacts or that these presentations were more acute. There was also a slight drop in those who required psychiatric admission and those referred to a CMHT for follow up, which raises questions about where the appropriate care was provided for this cohort. It may be that psychiatric symptoms were being missed due to patients being expedited, due to infection concerns and a focus on physical health problems.

Community services are not able to meet the needs of patients, in the same manner as they were before the pandemic. This is also likely reflected in a reduction of those presenting who were referred by their GP. If patients with psychiatric concerns are not presenting to services in the usual manner, there is a concern that they are 'suffering in silence' and this could also add to the future burden on services. There also evidence of a greater proportion in this cohort, presenting to the ED intoxicated and with alcohol issues, which could add to a future strain on health services.

However, older persons have been shown to have higher levels of resilience when faced with stressful life events and there may not be the predicted 'tsunami' of psychiatric issues. According to the inoculation hypothesis, it may be easier for older adults to cope with stressful events, because they have had to cope with similar stressors earlier in life<sup>15</sup>. A strength of this study, is that all patients 65 years or older who were referred for psychiatric assessment, were analysed during these time frames. Limitations include, that it did not capture patients who were medically admitted prior to referral for psychiatric assessment. Future research in this area, will hope to explore presentations after the pandemic subsides to investigate if there is the expected 'tsunami' of cases, at this stage. Previous years before the pandemic also will be explored, to study the pattern of presentations over a longer period of time. The authors of this paper hope that these findings, will aid in the reflection on how services respond to the current Covid-19 pandemic, now and into the future.



**Declaration of Conflicts of Interest:**

The authors have no conflicts of interest to declare.

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