The dizzy patient's journey: symptom onset to specialist review

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Dizziness and vertigo affect 17–30% of adults [1] and is one of the most common reported reasons for seeking medical help. Despite established diagnostic criteria for many vestibular disorders [2], anecdotally, these are not commonly utilized by non-specialists. Moreover, the most appropriate pathway for patients suffering from dizziness may be obscure, given the range of causes of this symptom, with options including ENT, Neurology, Gerontology, Psychiatry, or General Practice [3]. Uncertainty about the diagnosis and appropriate referral route presumably delays diagnosis, but there has been no data to date detailing time from symptom onset to specialist diagnosis for patients with dizziness.

Here, recognizing the variability of specialist service delivery around the world, we reviewed clinical data regarding time to specialist diagnosis for patients with chronic dizziness in two vestibular centers, one in Europe (UK) and one in South America (Brazil).

We carried out a case note review of all adult patients (≥ 18 years) using electronic healthcare records from patients who were referred with a primary complaint of dizziness, vertigo, or unsteadiness outpatient clinics from December 2022 to December 2023 at University College London Hospitals, UK and at Hospital Universitário Gaffree e Guinle, Rio de Janeiro, Brazil. We excluded 105 patients with doubtful or missing information on medical data. Both the final diagnosis and the data collection were made by Consultant Neurotologists with > 10 years of experience and according to Barany Society classifications [2].

Three hundred sixteen (one hundred fifty-seven patients from UK and one hundred fifty-nine from Brazil) with chronic (continuous or episodic) dizziness were included in the study (91 (28.8%) male patients), aged 18–96 (average age 57.8 (± 16.5) years). Average time from start of symptoms to the final diagnosis was 54 months (± 63) for UK center and 43 months (± 66) for the Brazilian center (Fig. 1), with a mean of 48.35 months (± 65) and a broad range of 1–396 months.

The most common cause of chronic dizziness in UK group was PPPD (accounting for 35% of all chronic dizziness), followed by VM (20.4%), prolonged symptoms after VN (15.3%) and untreated BPPV (10.2%). In the Brazilian group, the most common final diagnosis was BPPV (35.2%) followed by VM (20.1%), other non-vestibular causes of dizziness (12.6%) and PPPD (11.3%). In the UK group, the referral diagnosis matched the final diagnosis in 15.2% (n = 19) cases.

Despite inherent disparities between the UK and Brazilian healthcare systems, our findings reveal strikingly simi- lar timelines from the onset of dizziness symptoms to the eventual specialist diagnosis in both countries, on average 4 years. Such a long wait for the correct diagnosis and management of patients suffering from chronic dizziness seems to transcend geographical boundaries, suggesting similar trends are likely across National Health Services

worldwide. This study did not explicitly explore the causes for long wait times, but our anecdotal experience is that this relates primarily to factors that are intrinsic to dizziness symptoms, namely the diverse range of possible etiologies that lead to diagnostic uncertainty [4] and lack of established path- ways from emergency and primary care.

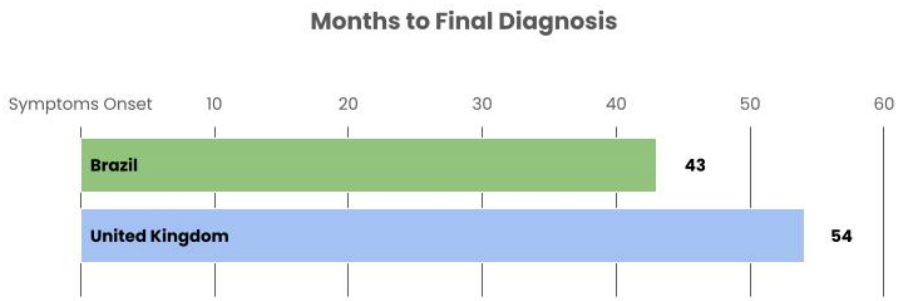

Figure 1. Time from symptom onset (months) to specialist diagnosis in UK and Brazil

In agreement with the lack of dedicated clinical training in neuro-otology, the diagnoses made by non-specialist doc- tors differed from specialist diagnosis in 90% of cases, consistent with other publications [5]; the greater magnitude observed here is perhaps because of the neurological bias of the UK specialist unit, where neurological causes (PPPD and VM) were more prevalent than 'otological' causes (e.g., BPPV and Meniere's disease). Data have been taken from two large University hospital settings with tertiary neuro- otology units. As such, the conclusions may not be reflective of practices outside these settings, where there may be better access to community specialist input, or contrastingly, even less access to specialist care such as in rural areas. Since our sample only applies to patients referred to secondary or tertiary care, additional studies are needed to understand the patient journey of all patients suffering from dizziness in the population, particularly those seen in primary care.

We did not explicitly collect data regarding the reasons for diagnostic delay, but a review of the clinical notes suggests a number of factors were responsible for this. On the one hand, access to certain specialist services have a long waiting list (as much as 12 months for one clinic in our sample, but as little as 1 week for acute vertigo clinics at UCLH). In addition, some patients were given less evidence-based diagnoses, such as cervicogenic vertigo or vertebrobasilar insufficiency, or wrong diagnoses, such as labyrinthitis, leading to a delay in onward referral. Nevertheless, misdiagnosis of vestibular disorders can have profound implications for patients, leading to unnecessary suffering, diminished quality of life, and long-term disability, both physical and mental [1]. From a public health perspective, incorrect diagnoses lead to wasted resources, either through prolonged hospitalization, unnecessary investigations, or onward referrals.

Our study emphasizes that patients with chronic dizziness wait many years before the right diagnosis is made and the appropriate treatment is offered, offering empirical vali- dation of anecdotal experiences. We confirm high rates of non-specialist misdiagnosis, reflecting the need for greater training across emergency, primary, and secondary care to better serve patients with dizziness.

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