



IN DIZZINESS# WITH NAUSEA-VOMITING, ANXIETY

Stemetil MD

Prochlorperazine maleate 5mg Mouth Dissolving tablets

Faster Relief, Better Control

Rx



Vestibular compensation takes up to 7 days for completion¹

AVAILABLE AS



Mouth dissolving tablet²



Inj 12.5 mg (for acute cases)²

Abridged Prescribing Information

Stemetil MD (Prochlorperazine mouth dissolving tablets)

Composition: Each tablet contains: Prochlorperazine maleate 5mg I.P.

Indications: Symptomatic treatment of vertigo due to Meniere's syndrome, labyrinthitis and other causes; nausea and vomiting of any aetiology, including that associated with migraine; in the treatment of schizophrenia, acute mania and as an adjunct in short term management of anxiety. **Dosage and Administration:** *Prevention of nausea and vomiting:* 5-10 mg twice or thrice daily. *Treatment of nausea and vomiting:* 20 mg stat followed, if necessary, by 10 mg two hours later. *Vertigo and Meniere's syndrome:* 5 mg thrice daily increasing, if necessary, to a total of 30 mg daily. After several weeks dosage may be reduced gradually to 5-10 mg daily. *Prevention of migraine:* 5 mg three or four times daily. *Treatment of migraine:* 20 mg stat, followed by 10 mg two hours later, if required. *Schizophrenia and other psychotic disorders:* Treatment varies depending on the condition. *Adjunct in the short term management of anxiety:* 15-20 mg daily in divided doses initially, but this may be increased, if necessary, to a maximum of 40 mg daily in divided doses. **Contraindications:** Hypersensitivity to phenothiazines or history of narrow angle glaucoma. **Precautions and Warnings:** Keep out of reach of children. Should be used with caution in elderly patients. To avoid in patients with renal and hepatic dysfunction, epilepsy, Parkinson's disease. To be avoided in pregnancy unless the treating Physician considers it essential. Nursing mothers: Breast-feeding should be suspended. **Adverse effects:** Generally well tolerated. Transient drowsiness, mild skin reactions, liver dysfunction, postural hypotension, extrapyramidal symptoms and rarely cardiovascular disorders have been reported. **Presentation:** 5 mg of Mouth Dissolving tablets: Strip of 10 tablets.

1. Curthoys et al. 1998. Vestibular Compensation. Therapy Adv Otorhinolaryngol. Basel, Karger, 55-82-110 2. Prochlorperazine. Prescribing Information. 2015 # Of Vertiginous Origin

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Management Approach to Vertigo at Primary Care Level in India: An Expert Opinion

DIVYA PRABHAT*, GB KULKARNI†, PRANAV KELKAR‡

ABSTRACT

Vertigo is the most common presentation of dizziness encountered by a general physician. However, there is an ongoing debate regarding the diagnosis and management of vertigo, worldwide. Even though vertigo is common in India, there is still a paucity of data from Indian milieu regarding patient- and physicians' approach towards the management of vertigo. Concerns pertaining to lack of awareness amongst patients, imprecision in patients' reporting of vertigo symptom quality, risk of misdiagnosis and the management approach in Indian setting are still unanswered. Therefore, an expert panel was formed to discuss the clinical gaps in the field of dizziness and vertigo therapy, from an Indian perspective, so as to drive the accurate diagnosis and disease management. The present work presents the expert opinion with respect to the prevailing clinical practice in an Indian setting.

Keywords: Dizziness, management, primary care, vertigo

Dizziness is a complex symptom that reflects a disturbance in balance perception. According to the Committee on Hearing and Equilibrium of the American Academy of Otolaryngology and Head and Neck, dizziness can be defined as a hallucination of motion without any real movement in relation to gravity.¹ Dizziness was traditionally classified into four categories based on the patient's description, viz.: (1) vertigo, (2) presyncope, (3) disequilibrium and (4) light-headedness.^{2,3}

Vertigo is the most common presentation of dizziness encountered by a general physician.³ Almost every individual experiences vertigo as a transient spinning dizziness at least once during their lifetime. As per the statistics, dizziness, including vertigo, affects about 15% to over 20% of adults yearly, as reported in large population-based studies.⁴ Its prevalence rises with age and is about 2-3 times higher in women than in men.⁴

Vertigo is a symptom, not a diagnosis. Vertigo is commonly caused due to a pathology in the peripheral or central vestibular apparatus and can be of benign

or serious nature. Differentiating between simple and serious causes of vertigo is a challenging process of elimination, based on patient's description of their symptoms and the interpretation of signs found on examination, especially at the primary care level. The patient often complains, "I feel as if I am rocking, or moving in some other way" or "I feel as if the room is spinning".

The family physician (general practitioner [GP]) has a very important role to play in the management of vertigo. Nonetheless, even though GPs are the first to treat vertigo patients, there is still paucity of published evidence on the specific management strategies in general practice setting. This gives a skewed view of the prevalence of causes of such symptoms.⁵

IMPACT ON THE QUALITY-OF-LIFE

As the global population continues to age, vertigo is becoming a growing public health problem. Patients with vertigo, irrespective of the age, often experience intense emotional distress, with symptoms of anxiety, fear and depression. Moreover, in patients who present with new onset of vertigo, imbalance, nausea and vomiting are often challenging. These physical, emotional and functional disturbances associated with vertigo may impact the professional, social and overall day-to-day activities of these patients. These impairments may be substantial, however, data suggest that the impact of vertigo on the health-related quality-of-life (QoL) may be significantly underestimated.⁶⁻⁸

*Bhatia General Hospital and BJ Wadia Hospital, Mumbai, Maharashtra

†Rajiv Gandhi Medical College, Thane, Maharashtra

‡Abbott Healthcare Pvt. Ltd, Mumbai, Maharashtra

Address for correspondence

Dr Divya Prabhat

Consultant ENT Surgeon

Bhatia General Hospital and BJ Wadia Hospital, Mumbai, Maharashtra

E-mail: divyaprabhat@gmail.com

Further, as vertigo can significantly impair the daily life, even during asymptomatic periods, simple symptom assessment may not be adequate; the patient may be more apprehensive about the subsequent unpredictable episode of vertigo than by the symptom itself.

Multiple studies have demonstrated the impact of vertigo on overall QoL.⁹⁻¹² Different authors have emphasized on the fear of new vertigo attacks, increase in distress and phobias as a result of the labyrinthopathies.¹²⁻¹⁴ Unlike global data, studies assessing the QoL of Indian patients with vertigo is scarce. A recent concluded registry by Kameswaran et al indicated that 50% of patients with vertigo present with associated symptoms such as nausea and vomiting, which can have a negative impact on the overall QoL.¹⁵ However, it should be noted that definition of age and the instrument used to assess the QoL differed in all the studies, bringing about a difference in the estimates of the impact on QoL. Further, while some studies included patients with acute objective measurable medical problems, others included etiologically heterogeneous patient population.

Falls are common in patients presenting with vertigo. Many of these patients with vertigo suffer from postural instability, disturbances and risk of falling. Those with central syndromes are at risk of recurrent and injurious falling. Hence, owing to the multifaceted nature of the symptom, associated risk of falls and fractures, and impact on QoL, there is a need for an individualized approach for the management of vertigo. The fall rates and fear of falling should be assessed and used to guide the regimen of rehabilitation therapy.

IDENTIFY THE NEED GAPS

Given the complexities and the seriousness of symptom, the American Academy of Family Physicians (AAFP) devised a treatment algorithm in 2010, aiding GPs to diagnose and treat patients with dizziness. However, in the light of new evidence and owing to the significant advancement in this field, the guideline was recently revised in 2017. In this revised approach, the type or quality of dizziness symptoms was given little or no diagnostic weight. Instead, timing and triggers were given significance to categorize patients for diagnosis.³ However, there are concerns regarding the implementation of this algorithm in an Indian setting. This is primarily due to the following need gaps prevalent in India:

- Lack of awareness amongst patients
- Imprecision in patients' reporting of vertigo symptom quality

- Increasing risk of misdiagnosis in patients with vertigo
- Lacunae in the management approach by the primary care physicians
- Lack of physician-patient interaction
- Lack of treatment algorithm
- Misuse of timing and triggers to categorize patients for diagnosis
- Pharmacological interventions used in the management of vertigo.

METHODOLOGY

To discuss the knowledge-practice gaps in the field of vertigo and to understand the prevailing clinical practice pattern in an Indian setting, an expert meeting was held in September 2017. The panel comprised of experts in the vestibular vertigo therapy area, which led to the conception of the present manuscript. This article was developed based on:

- Discussion by experts who were convened to review the epidemiological data on the prevalence of vertigo in an Indian context, level of patient awareness, extent of misdiagnosis at the primary care setting, diagnostic approach generally adapted and the commonly used anti-vertigo agents at the primary care level.
- A thorough review of literature from both national and global sources covering various aspects of vertigo like incidence (global and India data), impact on QoL of the patients, patient awareness, extent and reasons of misdiagnosis, guidelines followed and the commonly used investigational techniques.

The literature search strategy used for developing the present report is mentioned in Table 1.

Based on the experts' discussion and literature review, the article was formulated. Experts reviewed the content and shared their comments/suggestions with the writing group who revised the draft accordingly.

LITERATURE REVIEW AND EXPERT OPINION

Epidemiological Data on Dizziness and Vertigo

Literature Evidence

Global data has shown that about one out of three elderly people suffer from dizziness.⁴ The 1-year prevalence of dizziness was reported to be 18.2% in a community of elderly population.¹⁶ Santana et al

Table 1. Literature Search Strategy

Databases searched	Search terms	Result	Comments
PubMed and Google Scholar	Dizziness, Vertigo, epidemiology, incidence, prevalence, treatment, diagnosis, outcome, guidelines, screening and management were combined using Boolean operators AND/OR	38 research articles, systematic reviews or meta-analyses were used for the preparation of this expert opinion	Published literature corresponding only to human subjects and in English language were considered for this report

reports that dizziness is present in 5-10% of the world population and the prevalence rate is 65% in individuals older than 65 years.¹⁷ Another study reports that amongst patients within the age of 65 years, dizziness is the second most prevalent symptom in the world, and above this age, it is the most prevalent.¹⁸ Studies have further documented a high prevalence of benign paroxysmal positional vertigo (BPPV) and vestibular migraine (VM), as well as of comorbid anxiety at the population level. These incidences may vary depending on the setting, patient age and biases (e.g.; investigator, study design).

The statistics of prevalence of dizziness in India is not available. A study conducted in a rural population in India reported an overall prevalence of 0.71%.¹⁹ The psychogenic vertigo (0.03%) was most common form of vertigo reported in this population. However, a recently concluded registry conducted across many centers in India reported that BPPV accounted for a considerable percentage of the overall burden of vertigo. It was reported in this study that peripheral causes were predominant in majority (74%) with BPPV being the most frequent (68%). This was followed by other causes like migraine (central cause, 68.9%), which is mainly associated with lifestyle issues.¹⁵ Another study conducted in a teaching tertiary care hospital in Central India reported the magnitude of vertigo in geriatric patients attending outpatient clinic to be 3%, inflicting a considerable healthcare burden. In this study, BPPV constituted 22% versus 78% of non-BPPV group.²⁰

Expert Opinion

There are only few studies evaluating the prevalence of dizziness and vertigo in Indian population. However, an important limitation of these studies is that they were conducted in a specific subgroups of population. Therefore, obtaining the burden of disease in general population is an unmet need. The experts opined that the epidemiologic data from primary care settings, such as on the number and type of dizziness problems seen, prognoses, sensitivity and specificity, diagnostic approaches and the risk-benefit ratio on

the management strategies is crucial for improving clinician awareness of these disorders and may aid in improvement in identification, differential diagnostic work-up and effective treatment in the large group of patients with dizziness and vertigo.

Further, the experts propounded that the prevalence assessed in the published literature were either through questionnaire based surveys, or from the statistics retrieved from National Health Insurance claims database. The experts unanimously agreed that the wide variation in prevalence between these studies could be attributed to differences in ethnicity, subgroup selected and study design. Nonetheless, the nation-wide statistics unfolding prevalence of dizziness and vertigo needs to be ascertained in Indian-milieu. Moreover, the experts recommended that the clinical value of most of the epidemiologic findings may not be established by statistical significance, but by minimizing the relevant bias, which could have had an impact on the validity, reliability and reproducibility of the data, along with its generalizability.

Lack of Awareness amongst Patients

Literature Evidence

The underestimation of dizziness and vertigo symptoms with regard to their impact on individual and healthcare is due to the fact that large percentages of the cases remain underdiagnosed. Neuhauser et al in 2008 reported that 42% of the patients with vertigo never consulted a physician despite reporting symptoms of at least moderate severity.²¹ Yardley et al and Hannaford et al in their study noted a much higher percentage of participants with dizziness who did not consult a GP (60% and 77%, respectively).^{22,23} In another study by Bittar et al, though 67% of symptomatic respondents claimed that dizziness or vertigo does interfere with their daily activities, only 46% of respondents sought medical help, and this frequency of medical consultation is higher among women and the elderly.²⁴ These data sheds light on the lack of seriousness and awareness amongst patients towards the condition.

In consistence with the global data, Kameshwaran et al²⁵ in a recent study reported that knowledge, attitude and practice patterns amongst Indian vertigo patients are inadequate, highlighting the need for awareness and scientific education amongst these patients. According to this report, a significant proportion of patients had misconception that vertigo is the feeling of fainting due to height (76.2%); feeling of nausea and vomiting while in motion (75.7%) or the feeling of drifting to one side while walking (76.3%). Even though majority of the patients were aware that vertigo is a feeling of moving or spinning when not in motion, about three-fourth of the population had misapprehensions about the associated signs and symptoms related to the disease (~76%). Furthermore, more than half of the patients (60.2%) even believed that vertigo is transmitted from parents to children and is often associated with mood swings. According to this study, only 58.3% believed that medication for the treatment of vertigo should be taken in consultation with the physicians. More importantly, out of 1167 patients who participated in this study, none (0%) practiced high level of precaution towards vertigo. This first-of its kind study highlighted that knowledge, attitude and practice patterns amongst Indian vertigo patients are inadequate and healthcare providers should be trained to provide effective counseling to these patients.

Expert Opinion

There is an unmet need to enhance awareness about vertigo and the significance of having oneself assessed after the first episode. This is keeping in mind, the evidence that **an early assessment can facilitate early intervention particularly in central causes of vertigo.** Usually, patients do not perceive the need for seeking prompt advice of a GP after the first episode of dizziness/vertigo. Further, many a times, the patient does not follow the GP's advice about taking a full course of medications prescribed to him/her and is irregular in follow-up visits. The GP is consulted only when the episode of vertigo recurs and is accompanied by nausea and vomiting.

The GPs should be trained to provide counseling to the patients for effective disease management and the need for treatment compliance/follow-up visits. The experts were of the opinion that new ways of reaching out to the patients should be envisioned. This may include increasing community awareness events such as marathons, increasing media outreach through social communities, blogs, creating social media presence through health awareness campaigns consisting of role

plays, interactive sessions, hand-outs and medical camps. The posters and pictures depicting the symptoms of vertigo, elucidating the impact and the need for effective disease management, at the primary health centers, can improve patient awareness.

Increasing Risk of Misdiagnosis in Patients with Dizziness/Vertigo

Literature Evidence

Diagnostic approach

Vertigo is a diagnostic challenge because of a broad differential diagnosis (Table 2). A robust systematic approach can aid in preventing misdiagnosis. Qian et al²⁶ reported a high misdiagnosis rate of BPPV (60.0%) in a study in 80 patients conducted in an outpatient dizziness clinic. BPPV and VM are largely underdiagnosed, while Meniere's disease, which is about 10 times less frequent than BPPV, appears to be overdiagnosed.²⁶ Misdiagnosis has a significant financial impact on the patients, owing to the increased cost due to inappropriate treatment and investigations. The conventional approach to the evaluation of patients who present with dizziness or vertigo has been based on defining the type of symptom when assessing the most likely cause.^{2,27} The problem with the type being used as the principal factor in the diagnostic process was that it is neither a reliable symptom attribute reported by patients nor a valid discriminator among different causes of dizziness or vertigo.^{28,29} Furthermore, research that queried patients

Table 2. Differential Diagnosis of Vertigo: Common Causes

Peripheral causes

Benign paroxysmal positional vertigo
Meniere's disease
Vestibular neuritis
Labyrinthitis

Central causes

Vestibular migraine
Vascular
Multiple sclerosis
Vestibular epilepsy

Other causes

Psychiatric
Medication induced
Cardiovascular/metabolic
Orthostatic

presenting to the emergency department with vertigo symptoms that included a test-retest paradigm reported low reliability of patient reports on the type of the disease.²⁸ This led to a high magnitude of misdiagnosis, with rates estimated in the range of 74-81%.^{30,31} Physicians often use a generalized approach to a patient with vertigo, relying on the word used by the patient. The other likely reasons for frequent misdiagnosis were misuse of timing and triggers to categorize patients for diagnosis, and misconceptions linked to hallmark eye examination findings, overweighting age, vascular risk factors, neuro-examination to screen for stroke and overuse and over reliance on head CT to rule out neurologic causes. To overcome this concern of misdiagnosis, the AAFP in 2017 proposed the revised guidelines on the approach for the evaluation and management of dizziness. In this revised approach, the type or quality of symptoms was given little or no diagnostic weight. Instead, timing and triggers were given significance to categorize patients for diagnosis.³

Management approach by the primary care physicians

Although vertigo may be caused by a variety of conditions, often requiring a multidisciplinary approach, they rarely prompt referral to a specialist or a hospital admission for specific investigation. Only about 9-13% of these patients are referred to the specialists such as neurologists, cardiologists and otolaryngologists.³² Further, reports indicate that though primary care physicians or GPs exhibit a concerned attitude towards potentially life-threatening problems, these clinicians tend to rely on observation and medication prescription as primary management strategies for vertigo. Both advanced tests and referrals to specialists were suggested for only about 10% of patients. The clinicians reported more concern about serious underlying causes of vertigo when their diagnostic certainty was lower. Physicians tended to treat conservatively the more classic symptoms of vertigo, which often have self-limited causes and to conduct more investigations when a neurologic or cardiologic diagnosis was suspected.³³

Physician-patient interaction

Another concern in the management of dizziness is the downfall of doctor-patient communication, and bedside examination. With the advancement of technology, physicians are now becoming more reliant on technology for obtaining patient information, making diagnosis and in carrying out treatments. Experts feel that physicians are doing fewer physical examinations due to the prevalence of advanced medical technology examination.³⁴ Moreover, with the advancement of

medical technology, the use of Electronic Health Record (EHR) could decrease the narrative notes taking skills and clinical knowledge. In a study of 78 primary care physicians in New York, Hoff indicated that physicians tended to cut-and-paste boilerplate text into their reports of patient visits. Hoff also reported that physicians increasingly lost their ability to understand and abstract the richness and uniqueness of patients' information given in the standardized EHR format, consequently undercutting their ability to make informed decisions around diagnosis and treatment.³⁵

Imprecision in patients' reporting of vertigo symptom quality

Another challenge in the diagnosis and management of vertigo is the imprecision in patients' reporting of symptom quality.²⁸ Usually, the descriptions of the quality of the disease provided by the patients are unclear, inconsistent and unreliable, casting doubt on the validity of the traditional approach to the patient with dizziness. Further, dizziness or vertigo is often presented as a secondary complaint, while narrating patient history. Moreover, sensory symptoms are difficult for many patients to describe.

Expert Opinion

The experts reiterated the importance of consultation after an episode of dizziness or vertigo. This will help in ruling out serious causes such as cerebrovascular events. Further, they emphasized on the need for alternative approaches for the management of vertigo, emphasizing timing and triggers over type, as the investigating factor. The experts unanimously stressed on the need for empowering GPs with tools for accurate diagnosis. The GPs should be trained to provide counseling to the patients for effective disease management and the need for treatment compliance/follow-up visits. The GPs should be reminded about the importance of history taking as most cases of vertigo can be diagnosed by history alone. Further, there is an unmet need to increase awareness amongst GPs to recognize the importance of precise assessment of vertigo and prompt referral of cases, if required. The experts recommended multiple initiatives to achieve this goal. One of them is implementing training by involving government and non-governmental organizations. Experienced Ear-Nose-Throat (ENT) specialists and/or neurologists should be a part of this training curriculum. Further, the experts discoursed the content of the training modules to educate the primary care physicians in dizziness therapy area. The training content should provide an 'easy to use' and a simplified

algorithm for history taking and in addition should include practical modules on how to conduct bedside examination of a dizzy patient. The algorithm should be in line with the revised AAFP guidelines. The training module should also include hands-on demonstration of the HINTS (Head-Impulse—Nystagmus—Test-of-Skew) examination, Doll's eye test, head rotation test and Huntentberg test. The experts further agreed that evaluation of nystagmus is an area of improvement in general practice. This can be addressed by an expert demonstration on how to evaluate nystagmus in a dizzy patient in a general practice setting.

The experts opined that owing to the multifaceted nature, the only way to address dizziness or vertigo is by adapting a multipronged method. This includes, reassurance, pharmacotherapy and patient education on vestibular rehabilitation exercise. There is evidence to support the efficacy of vestibular rehabilitation programs for unilateral peripheral vestibular disorder and these programs should be considered. The GPs should describe the different mechanisms for recovery with vestibular rehabilitation, the exercises commonly used, and which are most suitable. The panel expressed concern on decreased physician-patient consultation time. Effective doctor-patient communication is essential for a shared perception on nature of the problem, goals of treatment and psychosocial support.

Role of Pharmacotherapy in the Management of Vertigo

Literature Evidence

The treatment of patients with vertigo of unknown cause is empirical. An organized and methodical approach to management of these patients is essential to maximize patient satisfaction. Clinically, treatment options for patients with vertigo include symptomatic, specific and prophylactic approaches. The treatments aim at the elimination of vertigo, thereby improving the QoL and reducing the risk of falls and fractures; enhancement or at least noncompromising of the processes of 'vestibular compensation' to allow the brain to find a new sensory equilibrium in spite of the vestibular lesion; and the reduction of neuro-vegetative and psycho-affective signs (nausea, vomiting, anxiety) that often accompany vertigo. Vestibular suppressants and antiemetic drugs are the mainstay of treatment of vertigo.

Vestibular suppressants are drugs that reduce the intensity of vertigo and nystagmus evoked by a vestibular imbalance. These also reduce the associated motion sensitivity and motion sickness. Conventional

Table 3. Vestibular Suppressant Medications

Medication	Dosage
Antiemetics	
Metoclopramide	5-10 mg orally every 6 hours, or 5-10 mg slowly IV every 6 hours
Prochlorperazine	5-10 mg orally or IM every 6-8 hours
Antihistamines	
Promethazine	25 mg every 6 hours orally, IM or rectally every 4-12 hours
Dimenhydrinate	50 mg orally every 6 hours
Meclizine	12.5-50 mg orally every 4-8 hours
Benzodiazepines	
Diazepam	2-10 mg orally or IV every 4-8 hours
Lorazepam	1-2 mg orally every 4 hours

vestibular suppressants consist of three major drug groups: anticholinergics, antihistamines and benzodiazepines (Table 3).

Expert Opinion

The experts are of the opinion that knowledge, attitude and practices of GPs are not adequate with regard to pharmacotherapy. They asserted the importance of vestibular suppressants in symptomatic management of vertigo in the acute phase. Each of the vestibular suppressants has a unique pharmacological profile and hence this demands careful selection of the patient for a particular vestibular suppressant. Of the available vestibular suppressants, cinnarizine and prochlorperazine are the commonly prescribed molecules by the GP.

The experts opined that prochlorperazine improves vestibular as well as associated vegetative symptoms of vertigo. In addition to its anticholinergic and antidopaminergic activity, prochlorperazine acts on serotonergic neurotransmitter system and hence could be the reason for being the drug of choice for short-term symptomatic management of vertigo associated with anxiety as a psychiatric comorbidity. Further, prochlorperazine is less sedative than cinnarizine and cinnarizine combinations and other fixed-dose combination of vestibular suppressants. The experts unanimously agreed that EPS (extrapyramidal symptoms) is not a concern if prochlorperazine is prescribed for short-term (up to 7 days) symptomatic management of vertigo, as 5 mg TDS (oral). Also, the experts suggested that precaution should be exercised while prescribing prochlorperazine in patients at

extremes of age. Moreover, they opined that cinnarizine is more efficacious in peripheral vertigo (without nausea and vomiting) than prochlorperazine.

The experts unanimously agreed that the GP should be discouraged to adopt a SOS approach (to be taken as and when needed) to treat mild-to-moderate dizziness in an OPD setting. A complete course of the vestibular suppressant for 3-7 days is recommended. However, in some cases such as an established Meniere's or VM, SOS prochlorperazine can be used to abort an acute episode of vertigo. Furthermore, the experts believed that GPs should be trained to provide counseling and reassurance to the patients for effective disease management.

CONCLUSION

In conclusion, the experts identified lack of patient awareness, misdiagnosis by GP and inappropriate use of pharmacotherapy to be the key unmet needs in Indian scenario. There is a wide variation in the prevalence of vertigo due to differences in ethnicity, subgroup selected and study design. The epidemiologic data from primary care settings may help enhance the awareness of these disorders at the physician level and aid in appropriate management of vertigo. Further, there is an increasing need for patient awareness about vertigo, which can be attained by community awareness events. The GPs should be empowered with tools for accurate diagnosis and should be trained to provide counseling to the patients. Further, it is important to ensure that the GPs are trained for appropriate referral of cases. This can be attained by implementing physician education programs for GPs. The training content should provide an 'easy to use' and a simplified algorithm for history taking and in addition should include practical modules on how to conduct bedside examination of a dizzy patients. The relevance of patient-doctor interaction and reassurance should be emphasized in these programs. Furthermore, there is a need for alternative approaches for the management of vertigo, emphasizing timing and triggers over type, as the investigating factor. Vestibular suppressants are crucial in the management of acute phase vertigo. Given the heterogeneity of treatment effect, a link between patient presentation and the type of molecule is quintessential. Prochlorperazine acts on serotonergic neurotransmitter system and hence could be the reason for being the drug of choice for short-term symptomatic management of dizziness or vertigo associated with anxiety and vomiting. Cinnarizine is more efficacious in peripheral vertigo, without nausea and vomiting. Another area of intervention at the physician and

patient level is the vestibular rehabilitation in vertigo management. Vestibular rehabilitation therapy is a highly effective modality for most with disorders of the vestibular or central balance system. There is a need for customized vestibular rehabilitation therapy programs at GP clinics, than the generic exercises in resolving symptoms of vertigo.

Conflict of Interest

An expert group discussion was organized in association with Abbott Healthcare Pvt. Ltd. This article is based on the views expressed during the afore-said expert group discussion. The views expressed in the said discussion are solely of the panel members.

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