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Editorial

Inclusion of screening procedures in Ayushman Bharat Pradhan Mantri Jan Arogya Yojana: Steps in the right direction

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The Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PMJAY) of India is the largest health scheme in the world, covering almost 500 million people, comprising the bottom 40% of India's population. The scheme was launched in 2018 and has since grown exponentially, covering almost 2000 procedures. There are nearly 150,000 health and wellness centers which aim to provide comprehensive health care to the population. The recent addition of screening procedures for glaucoma and diabetic retinopathy in April 2022 is steps in the right direction to reduce blindness from these two important diseases. Both glaucoma and diabetic retinopathy are asymptomatic until they are in the advanced stage.

Diabetic retinopathy and glaucoma screening in health facility settings as per defined screening guidelines are being introduced for the 1st time under AB PMJAY. It is very well known how preventive measures such as vaccination and screening programs add much more value to health across indices such as infant mortality, COVID mortality, or cancer survival. The early diagnosis can maximize treatment options available under AB PMJAY for glaucoma and diabetic retinopathy including laser. Laser could be effectively used to avoid progression to complications that may require expensive surgeries with less than desirable outcomes. This will lead to better visual outcomes, improved quality of life for the patient, and cost savings to the scheme by reducing the use of high-cost surgical procedures.

Glaucoma is a leading cause of irreversible blindness in the world. Glaucoma is asymptomatic and the loss of vision starts in the peripheral field; hence, most of the cases go undiagnosed. Based on projected global trends, approximately 80 million people would be suffering with glaucoma by 2020, of these 11 million are estimated to be bilaterally blind. At a modest estimate, 11.2 million Indians suffer from this condition, with 1.1 million blind people. World over, the aging population is increasing and so is the age-related diseases including glaucoma. This number is likely to increase unless we create glaucoma awareness, detect the condition early, and treat effectively. Since glaucoma is a condition that cannot be diagnosed with a single test, it is difficult to screen for it in the community. The diagnosis involves comprehensive evaluation of intraocular pressure, gonioscopy (visualize the drainage channels in the eye to understand the mechanism of glaucoma), optic disk evaluation, and visual field testing to know the amount of damage. The cost incurred is high and the majority cannot afford. Reimbursing screening/ comprehensive evaluation by the national health authorities is a big step toward making early detection a reality.

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In India, what is alarming is that 90% of glaucoma in our community is undetected compared to 50% in developed countries, mostly because of lack of awareness. More than 50% of glaucoma patients have advanced disease and close to 20% are blind due to glaucoma at the time of diagnosis. Low vision and blindness can have devastating consequences for individuals with undiagnosed glaucoma as it leads to loss of independence and reduces quality of life. The inclusion of glaucoma screening in AB PMJAY is a welcome move, which makes screening affordable to the vulnerable population.

Diabetic retinopathy is quite similar to glaucoma in being asymptomatic in the initial phase and having the potential to cause irreversible blindness. Diabetic retinopathy is the leading cause of visual disability and blindness in diabetics. Among the approximately 70 million diabetics in India, the estimated prevalence of diabetic retinopathy ranges from 12 to 20 million, of which approximately 2.5 million have visual impairment. The number of people with diabetes mellitus in India is expected to increase to 80 million, and patients with diabetic retinopathy would increase to 22 million by 2030. The potential economic and social burden of diabetes mellitus and diabetic retinopathy demands an effective screening strategy, timely case detection, and effective treatment.

AB PMJAY has included DR screening by both ophthalmologist and general physicians for eligible reimbursement. The inclusion of general physician in the package is a key decision and provides an opportunity to screen a majority of diabetic patients at the first point of contact. It is well known that many patients do not reach

the ophthalmologist for retinal screening even though they are aware of potential visual impairment due to diabetes. Physicians are now in a position to take up screening at a large scale, and many patients can be saved from the latestage complications of diabetic retinopathy. One of the key components of screening patients is the use of retinal cameras. Non-mydriatic (which does not require pupil dilation) retinal cameras can take optimal pictures of the retina in a single image. The devices are extremely rugged and can be moved from any place and can work on any dusty environment even for small pupil sizes. The devices can be integrated to a comprehensive digital health platform which can connect to an ophthalmologist or any electronic medical record, if required. The inclusion of DR screening would hopefully increase screening and generate the economy of scale needed to reduce the cost of such cameras.

In conclusion, the addition of reimbursement of diabetic retinopathy and glaucoma screening is a major step in the right direction, providing relief to both patients and providers. This would hopefully prove to be an inflection point in the prevalence of blindness due to the two important "silent thieves of sight."

*The views expressed by Dr. Chandrashekar are personal and do not reflect the stand of the affiliated organization.

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