# **Primary Care Screening Tool for Polycystic Ovary Syndrome:** Step One in the Battle Against Non-Communicable Disease

#### Sanjay Kalra<sup>1</sup>, Rama Vaidya<sup>2</sup>, Madhur Verma<sup>3,4</sup>, Ameya Joshi<sup>5</sup>

<sup>1</sup>Department of Endocrinology, Bharti Hospital, Karnal, Haryana, University Center for Research and Development, Chandigarh University, Mohali, Punjab, <sup>2</sup>Hon. Director of the Division of Endocrine and Metabolic Disorders, Kasturba Health Society-Medical Research Center, Vile Parle (W), Mumbai, Maharashtra, <sup>3</sup>University Center for Research and Development, Chandigarh University, Mohali, <sup>4</sup>Department of Community Medicine, All India Institute of Medical Sciences, Bathinda, Punjab, <sup>5</sup>Department of Endocrinology, Bhaktivedanta Hospital And Research Institute, Mumbai, Maharashtra, India

# Abstract

Polycystic ovary syndrome (PCOS) is often the first manifestation, in adolescents and young adults, of metabolic problems that may occur later. Early identification, timely referral and appropriate treatment can result in improved reproductive, metabolic and comprehensive health. However, unlike other components of metabolic syndrome, which can be diagnosed at primary care level, there is no inexpensive, clinical tool to screen for PCOS. We share a simple six-item questionnaire, structured in three domains, which can be used as a screening tool for the syndrome. This allows early diagnosis and management of the condition, facilitates a life course approach to health promotion, and lays the foundation for the prevention of other comorbid metabolic disorders. It also helps integrate national programmes concerning non-communicable disease and women's healthcare under one umbrella, thus optimizing and strengthening delivery of community care.

Keywords: Integrated care, maternal health, menstrual disorders, metabolic syndrome, obesity, PCOS, preventive health, public health

# **NTRODUCTION**

The world is experiencing an epidemic of metabolic disease, with India facing more than its fair share of the burden.<sup>[1]</sup> Current understanding reinforces the importance of women's health, in the reproductive phase and beyond, in preventing and mitigating chronic metabolic disease. One example of a gender-specific syndrome that can lead to multiple metabolic maladies is polycystic ovary syndrome (PCOS).<sup>[2,3]</sup> PCOS is often the first manifestation, in adolescents and young adults, of metabolic problems that may occur later in life. Early identification, timely referral and appropriate treatment can result in improved reproductive, metabolic, medical and psychological health.<sup>[4]</sup>

### Clinical screening: Challenges and solutions

PCOS is a well-recognized syndrome, with established diagnostic and grading criteria.<sup>[2]</sup> The current approach needs hormonal assays and/or imaging modalities for confirmation of diagnosis. This prevents PCOS from being diagnosed at the primary healthcare level, due to logistic constraints.



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A similar situation is encountered with other diseases, where confirmatory diagnostic modalities are not easily available or affordable.<sup>[5,6]</sup> One solution is to create and validate screening or prescreening tools, based upon clinical variables. These can be used to screen and identify individuals at high risk of PCOS and refer them for confirmation of diagnosis and appropriate management at a higher level of healthcare.

## Screening tool for PCOS

Such an approach can be tried for PCOS as well. A clinical screening tool, based on history taking, which can be administered by paramedical staff, at primary healthcare, should be able to improve the detection rate of PCOS and facilitate its management. This tool, however, should be validated.

Department of Endoc	Address for correspondence: Dr. Sanjay Kalra, rinology, Bharti Hospital, Karnal, Haryana, India. E-mail: brideknl@gmail.com
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#### Table 1: Primary care prescreening tool for PCOS

Affirmative answer to any two of the following three domains should prompt screening for PCOS and referral to secondary healthcare.

I Menstrual/Maternal Altered menstrual frequency/flow Subfertility Early pregnancy loss II Metabolic Obesity/Central obesity Dysglycaemia Cardiovascular disease, including hypertension and dyslipidaemia III 'Misfit masculinity' (dermatological) Hair growth, excessive Darkening of skin/acanthosis nigricans Acne

We propose a user-friendly primary care screening tool which can be used to identify women who need the referral for diagnosis and treatment [Table 1]. It consists of six questions, structured into three domains: menstrual/maternity, metabolic and 'misfit masculinity' (dermatological). We suggest that a positive answer to a question in any two domains should prompt suspicion of PCOS. The tool can be strengthened by adding pictorial gradings of menstrual flow/regularity, acanthosis nigricans, acne, and hirsutism (Ferriman–Gallwey score), which help in objective reporting.<sup>[7-10]</sup>

#### Summary

The primary care screening tool for PCOS will promote awareness, screening and identification of the syndrome as well as timely addressal. This should facilitate improvement in both non-communicable disease prevention as well as maternal health.

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#### **Conflicts of interest**

There are no conflicts of interest.

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