Interpretation and Discussion of the Royal Australian College of General Practitioners' "Guidelines for Preventive Activities in General Practice" : Urinary Incontinence Postprint

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Abstract

Urinary incontinence is a common and frequently occurring symptom in general practice. However, as a privacy-related manifestation, its identification and treatment in China' s primary healthcare services remain insufficient. This article interprets and analyzes the recommendations on urinary incontinence in the tenth edition of the Royal Australian College of General Practitioners (RACGP) "Guidelines for Preventive Activities in General Practice." This includes a detailed elaboration, analysis, and summary of the types of urinary incontinence, screening, opportunistic examinations, and preventive activities for the general population and specific populations, followed by in-depth reflection and discussion. The aim is to further advocate for general practitioners to enhance their sensitivity toward urinary incontinence screening, affirm the significance of early case finding and disease screening, clarify feasible strategies for the identification, screening, prevention, and intervention of urinary incontinence at the primary level, and advocate for the implementation of early comprehensive management and intervention.

Full Text

Preamble

Interpretation and Discussion of the Royal Australian College of General Practitioners (RACGP) "Guidelines for Preventive Activities in General Practice": Urinary Incontinence

1 Introduction

Urinary incontinence (UI) is defined by the International Continence Society (ICS) as the complaint of any involuntary loss of urine. As a common chronic condition, UI significantly impacts the quality of life, psychological well-being, and social participation of patients. Despite its prevalence, UI remains underreported and undertreated due to social stigma and the misconception that it is an inevitable part of aging. The Royal Australian College of General Practitioners (RACGP) "Guidelines for Preventive Activities in General Practice" (often referred to as the "Red Book") provides evidence-based recommendations for the screening and management of UI in the primary care setting. This article aims to interpret these guidelines and discuss their clinical application within the context of general practice.

2 Epidemiology and Impact

UI affects individuals across all age groups, but its prevalence increases significantly with age, particularly among women. Studies indicate that approximately one-third of adult women and one-tenth of adult men experience some form of urinary incontinence. The condition is categorized into several types, the most common being stress urinary incontinence (SUI), urge urinary incontinence (UUI), and mixed urinary incontinence (MUI). Beyond the physical discomfort and hygiene issues, UI is associated with increased risks of falls, skin infections, and depression. In the elderly, it is a leading cause of admission to residential aged care facilities.

3 Screening Recommendations

The RACGP guidelines emphasize the proactive role of general practitioners (GPs) in identifying patients with UI. Because many patients are reluctant to initiate conversations about bladder control, the guidelines suggest that GPs should incorporate screening questions into routine health assessments, especially for high-risk populations.

3.1 Target Populations for Screening The "Red Book" identifies specific groups that should be prioritized for UI screening: - Women who have recently given birth (postpartum period). - Menopausal and postmenopausal women. - Elderly patients (aged 65 and over), particularly those with comorbid conditions

or mobility issues. - Patients with chronic conditions such as diabetes, obesity, or neurological disorders (e.g., Parkinson' s disease, stroke).

3.2 Screening Methods Screening can be as simple as asking a direct question: "Do you ever leak urine when you don' t want to, or when you cough, sneeze, or

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Urinary incontinence (UI) is a common and frequently occurring symptom encountered in general practice. However, as a condition closely tied to patient privacy, its identification and treatment within China' s primary healthcare services remain insufficient. This article provides an interpretation and analysis of the recommendations regarding urinary incontinence in the 10th edition of the *Guidelines for Preventive Activities in General Practice* published by the Royal Australian College of General Practitioners (RACGP). It details and summarizes UI types, screening methods, opportunistic examinations, and preventive activities for both the general population and specific high-risk groups. Through in-depth reflection and discussion, this study aims to encourage general practitioners (GPs) to increase their sensitivity toward UI screening and to affirm the significance of early case-finding and disease screening. Furthermore, it clarifies feasible strategies for the identification, screening, prevention, and intervention of urinary incontinence at the primary care level, advocating for the implementation of early, comprehensive management and intervention.

Keywords: Urinary incontinence; General practitioners; Primary care; Early detection; Case-finding

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Introduction

Urinary incontinence (UI) is defined by the International Continence Society (ICS) as the complaint of any involuntary leakage of urine. As a common clinical symptom in general practice, UI significantly impacts the physical health, psychological well-being, and social functioning of patients. Despite its high prevalence, many patients do not proactively seek medical advice due to social stigma or the misconception that UI is an inevitable part of aging. In the context of primary care in China, there is a notable gap in the systematic screening and early intervention for UI.

The Royal Australian College of General Practitioners (RACGP) *Guidelines for Preventive Activities in General Practice* (commonly known as the "Red Book") is a globally recognized resource for evidence-based preventive care. The 10th edition provides updated, evidence-based recommendations for managing UI in the primary care setting. This article analyzes these guidelines to provide a reference for Chinese GPs to improve the quality of care for patients with UI.

1. Classification and Screening of Urinary Incontinence

The RACGP guidelines emphasize the importance of distinguishing between different types of UI to guide appropriate management. The primary types include:

- **Stress Urinary Incontinence (SUI):** Involuntary leakage on effort or exertion, or on sneezing or coughing.
- **Urgency Urinary Incontinence (UUI):** Involuntary leakage accompanied by or immediately preceded by urgency.
- **Mixed Urinary Incontinence (MUI):** Involuntary leakage associated with both urgency and exertion/effort.

1.1 Screening and Case-Finding

The guidelines suggest that while universal population-based screening may not be supported by sufficient evidence to demonstrate cost-effectiveness, "case-finding" or "opportunistic screening" is highly recommended. GPs should remain vigilant and proactively inquire about bladder control in high-risk populations, such as postpartum women, older adults, and patients with chronic conditions like obesity or diabetes.

2. Preventive Activities and Interventions

The 10th edition of the RACGP guidelines outlines specific preventive activities categorized by population groups.

2.1 General Population

For the general population, prevention focuses on lifestyle modifications. These include maintaining a healthy Body Mass Index (BMI), smoking cessation, and managing chronic cough or constipation, all of which can reduce intra-abdominal pressure and the risk of UI.

2.2 Specific Populations

- **Pregnant and Postpartum Women:** The guidelines strongly recommend Pelvic Floor Muscle Training (PFMT) for pregnant women to prevent UI in the late stages of pregnancy and the postpartum period.

- **Older Adults:** For older patients, the focus shifts to identifying reversible factors (such as medication side effects or urinary tract infections) and implementing environmental modifications to prevent falls associated with urgency.

3. Reflections and Implications for Primary Care in China

The interpretation of the RACGP guidelines offers several insights for the development of UI management in China' s primary healthcare system:

1. **Enhancing GP Sensitivity:** GPs should be trained to recognize the "hidden"nature of UI. Incorporating simple questions about bladder health into routine consultations for chronic disease management can significantly increase detection rates.
2. **Standardizing Early Intervention:** PFMT should be promoted as a first-line, low-cost, and effective intervention. Establishing standardized protocols for PFMT within community health centers can empower patients to manage symptoms early.
3. **Comprehensive Management:** UI should not be treated in isolation. A holistic approach

Abstract

Urinary incontinence is a common and frequently occurring symptom in general practice. However, as a manifestation related to privacy, its identification and treatment in primary healthcare services in China remain insufficient. This article interprets and analyzes the recommendations on urinary incontinence from the 10th edition of the Royal Australian College of General Practitioners (RACGP) Guidelines for Preventive Activities in General Practice. It provides a detailed elaboration and analysis of the types of urinary incontinence, screening, conditional examinations, and preventive activities for both the general population and specific populations, followed by in-depth reflection and discussion. The aim is to further advocate for general practitioners to enhance their sensitivity to urinary incontinence screening, recognize the importance of early case detection and disease screening, and clarify feasible strategies for identification, screening, prevention, and intervention of urinary incontinence at the primary level. It also promotes the implementation of early comprehensive management and interventions.

Keywords: Urinary incontinence; General practitioners; Primary care; Early detection; Case finding

John Murtagh' s "Seven Masked Problems" in general practice represent seven common clinical presentations within a safe diagnostic strategy. These conditions are often variable, easily obscured, and prone to underdiagnosis or misdiagnosis. These seven "masks" —representing potential underlying health issues —are critical "masqueraders" that general practitioners must prioritize and rule

out when managing uncertain or undifferentiated clinical problems. They primarily include: depression, anemia, urinary tract disorders, diabetes, spinal dysfunction, thyroid disease, and drug-related side effects.

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Chinese General Practice. Among various conditions, urinary incontinence (UI) is a manifestation of urinary tract disease that is easily overlooked and is often referred to as a "social cancer." However, there is currently a lack of up-to-date, comprehensive clinical guidelines for UI, a gap that warrants significant attention and reflection from general practitioners.

Urinary incontinence refers to the involuntary leakage of urine. It is a common symptom in general practice, particularly among women and the elderly, and can have a profound impact on a patient' s health and overall quality of life. Despite its high prevalence and detrimental effects on physical and mental well-being, UI is frequently neglected in routine primary healthcare in China, resulting in low detection rates and inadequate intervention measures. Nevertheless, urinary incontinence is both preventable and predictable; through early identification and prevention, its onset and progression can be avoided. Consequently, scientific evidence and practical experience are required to effectively identify, manage, and prevent UI issues.

Based on the recommendations for urinary incontinence found in the *Guidelines for Preventive Activities in General Practice* (commonly referred to as the "Red Book") published by the Royal Australian College of General Practitioners (RACGP), this article provides an interpretation and analysis of these standards. Furthermore, it offers new insights integrated with the practical context of primary healthcare in China.

1.1 尿失禁的类型

There are four common types of urinary incontinence: stress urinary incontinence, urge urinary incontinence, mixed urinary incontinence, and overflow urinary incontinence. When diagnosing urinary incontinence, it is critical to distinguish between urge and stress incontinence, as their treatment and management strategies differ significantly. (1) Stress urinary incontinence refers to the leakage of urine that may occur during exercise, coughing, sneezing, laughing, walking, lifting weights, or other physical movements. This condition is more common in women, though it also occurs in men, particularly following prostate surgery. Pregnancy, childbirth, and menopause are the primary factors contributing to stress urinary incontinence. (2) Urge urinary incontinence is characterized by a sudden and intense need to urinate.

This condition is typically associated with urinary frequency and nocturia, often resulting from an overactive or unstable bladder, neurological disorders, constipation, an enlarged prostate, or a history of poor bladder habits. (3) Mixed urinary incontinence is a combination of stress and urge urinary incontinence and is most frequently observed in elderly women. (4) Overflow urinary incontinence is caused by an obstruction or damage to the bladder outlet, and its symptoms can sometimes be confused with those of stress urinary incontinence.

Current domestic and international research on urinary incontinence has focused extensively on stress urinary incontinence. Regarding the international prevalence of the condition, urinary incontinence is more common in women than in men. The Continence Foundation of Australia estimates that 80% of urinary incontinence patients in the community are female. Although enuresis (nocturnal bedwetting) is common in children, the prevalence and severity of urinary incontinence tend to increase with age. It is estimated that severe urinary incontinence affects approximately 5% of individuals aged 65–84.

In the population aged 85 and older, this proportion rises to 28%.

However, these figures may be underestimated, as urinary incontinence is frequently underreported and undertreated. Internationally, including in China, the incidence of urinary incontinence is higher in women than in men, and research has largely been limited to female populations. Nevertheless, there is limited evidence regarding the prevalence of urinary incontinence in culturally, linguistically, and gender-diverse communities, as well as those with diverse sexual orientations; future research and exploration in these areas should be strengthened. Given the rising prevalence of urinary incontinence, case-finding efforts should be intensified for key and high-risk populations. Referring to the recommendations in the "Red Book" to assist patients with preventive activities often yields positive outcomes.

Case finding for urinary incontinence remains challenging. In practice, many patients feel embarrassed by urinary incontinence and do not raise the issue with their general practitioners. Some patients may also view it as a normal consequence of childbirth, aging, or other factors, and thus it is often absent from their primary complaints. Many are unaware that effective treatments are available, which increases the difficulty of case finding and early management. Fundamentally, because urinary incontinence is a relatively private topic, outreach lacks comprehensiveness and breadth, leading to lower disease screening rates. Consequently, acknowledging the private nature of urinary incontinence, this paper provides an in-depth interpretation and analysis of the "Red Book" and proposes feasible recommendations. The screening recommendations for urinary incontinence in the "Red Book" are as follows:

2.1 尿失禁的筛查建议

It is generally considered appropriate to conduct routine screening for urinary incontinence (UI) in the general population. This recommendation is based on a

systematic review of the Women's Preventive Services Initiative published in the *Annals of Internal Medicine*. The study evaluated whether screening for UI in undiagnosed women could improve clinical outcomes—such as symptoms, quality of life, and functional status—while also assessing the accuracy of screening methods and potential harms. The review concluded, however, that there is currently insufficient evidence regarding the overall effectiveness and potential harms of universal UI screening for women.

Regarding opportunistic screening for urinary incontinence, the *Red Book* explicitly identifies high-risk populations. These primarily include women, men who have undergone prostate surgery, and patients suffering from respiratory diseases, diabetes, stroke, cardiac conditions, recent surgeries, neurological disorders, disabilities, or multiple comorbidities. Additionally, patients on polypharmacy or medications that may exacerbate UI, frail elderly patients, and those in long-term care facilities are also considered high-risk groups.

In clinical practice, the 3-Incontinence Questions (3IQ) are utilized to inquire about and clarify the patient' s condition, as detailed in . Specifically, the categorical analysis for question (3) is as follows: a. Symptoms typically associated with physical activity are classified as stress-only or stress-predominant UI. b. Symptoms occurring primarily when there is an urge to empty the bladder are classified as urge-only or urge-predominant UI. c. Symptoms occurring without physical activity or a sense of urgency are classified as being caused or dominated by other factors.

Chinese General Practice d. Symptoms associated with physical activity and urgency occurring with approximately equal frequency are classified as mixed UI. Have you experienced any urinary leakage in the past three months (even if only a few times)? No - Questionnaire complete. In the past three months, have you experienced any of the following symptoms of urinary leakage (check all that apply): a. When performing physical activities, such as coughing, sneezing, or lifting heavy objects? b. When you have a sudden urge or feeling that you need to urinate but cannot reach the toilet in time? c. Without physical activity and without a sense of urgency?

In the past three months, which situation describes when you experienced urinary leakage most frequently (select only one): a. When performing physical activities, such as coughing, sneezing, or lifting heavy objects? b. When you have a sudden urge or feeling that you need to urinate but cannot reach the toilet in time? c. Without physical activity and without a sense of urgency? d. About equally between physical activity and a sense of urgency?

2.3.1 一般人群的尿失禁预防建议

Based on clinical practice experience in general medicine, preventive measures that patients can adopt for urinary incontinence include weight loss, smoking cessation, and reducing the intake of caffeine and alcohol. Patients are also advised to increase their consumption of fiber, fruits, and vegetables to ad-

dress constipation, engage in 30 minutes of daily exercise, and cultivate healthy toileting habits. For the general population, maintaining a healthy lifestyle—particularly regarding diet and exercise—is beneficial for the prevention of urinary incontinence. Furthermore, it is crucial in clinical practice to monitor and adjust a patient' s fluid intake; to prevent the exacerbation of bladder control issues caused by dehydration, individuals at risk of urinary incontinence should maintain adequate hydration.

In practical application, when providing guidance on fluid intake, physicians must develop personalized hydration plans based on individual circumstances to avoid both excessive and insufficient consumption. Patients should be advised to distribute their fluid intake throughout the day rather than consuming large quantities within a short period. Additionally, patients should be encouraged to choose plain water and limit the intake of sugary or irritating beverages to minimize bladder irritation. Through the scientific management of hydration habits, the risk of urinary incontinence can be effectively reduced, thereby improving the patient' s overall quality of life.

2.3.2 特定人群的预防活动建议

The *Red Book* provides specific recommendations for the prevention of urinary incontinence in targeted populations, including pregnant and postpartum women. Within the female population, women at specific ages or stages of pregnancy and childbirth face an elevated risk of developing urinary incontinence. Evidence suggests that pelvic floor muscle training (PFMT) can effectively reduce the incidence of urinary incontinence during the third trimester of pregnancy and the immediate postpartum period. However, current evidence remains insufficient to determine whether pelvic floor muscle training is effective in preventing urinary incontinence that persists for more than one year postpartum. Consequently, close clinical attention should be directed toward women of childbearing age and the postpartum population.

3 对《红皮书

Interpretation and Comprehensive Analysis of Recommendations

The rapid advancement of machine learning and deep learning has necessitated a rigorous re-evaluation of existing methodologies and their practical applications. This section provides a comprehensive interpretation and synthesis of the recommendations proposed in the preceding chapters, focusing on their theoretical implications and technical implementation.

1. Methodological Framework and Model Optimization

The core of the proposed framework lies in the integration of advanced optimization techniques with robust architectural designs. As demonstrated in

(eq:optimization_{target}), the objective function must account for both empirical risk and structural complexity to ensure generalization.

The data presented in underscores the necessity of hyperparameter tuning. Specifically, when the learning rate η is adjusted according to the schedule defined in $\mathcal{F}$, we observe a significant reduction in convergence time. It is recommended that practitioners prioritize adaptive gradient methods, such as Adam or RMSProp, particularly when dealing with high-dimensional sparse data. Furthermore, the use of regularization terms like L_1 and L_2 (e.g., $\lambda \sum \|w\|^2$) remains essential to prevent overfitting in complex neural networks.

2. Data Preprocessing and Feature Engineering

Effective machine learning outcomes are fundamentally dependent on the quality of input data. Our analysis suggests that the preprocessing stage should not be viewed as a preliminary step but as an iterative process.

- **Normalization:** All input features should be scaled to a standard range, typically $[0, 1]$ or standardized to have a mean of zero and a variance of one. This ensures that the loss surface is more spherical, facilitating faster convergence.
- **Dimensionality Reduction:** In cases where the feature space d exceeds the number of samples n, techniques such as Principal Component Analysis (PCA) or t-SNE should be employed to identify the latent manifold.
- **Handling Missing Values:** Rather than simple deletion, we recommend sophisticated imputation strategies, such as K-Nearest Neighbors (KNN) imputation or multiple imputation by chained equations (MICE), to preserve the statistical integrity of the dataset.

3. Evaluation Metrics and Validation Strategies

To accurately assess model performance, it is critical to move beyond simple accuracy scores. As noted in [**?**], accuracy can be misleading in the presence of class imbalance. Instead, researchers should report a suite of metrics, including Precision, Recall, F1-score, and the Area

3.1 筛查建议的证据分析

Evidence for routine urinary incontinence (UI) screening in the general population remains insufficient, a conclusion based on a high-level systematic review. The occurrence of UI is concentrated within high-risk groups and often stems from specific pathogenic factors. Consequently, universal screening for the entire population is neither necessary nor urgent. Although there is no evidence supporting the need for UI screening in healthy, asymptomatic individuals, it is crucial to approach this topic with sensitivity. Therefore, both physicians and patients should maintain awareness regarding UI screening, which holds significant clinical guiding value. In daily practice, general practitioners (GPs)

should proactively inquire whether patients are experiencing related distress, particularly among groups who may be hesitant to speak out due to cultural or personal reasons. By establishing a trusting doctor-patient relationship, potential high-risk individuals can be better identified, providing a foundation for subsequent interventions. Furthermore, physicians must possess sufficient professional knowledge to provide scientific and accurate answers when patients raise questions, thereby avoiding misunderstandings or delays caused by information asymmetry. This approach not only reflects a patient-centered service philosophy but also contributes to the improvement of overall medical quality. The "Red Book" provides guideline recommendations for UI screening in both the general and high-risk populations, offering constructive significance for real-world clinical practice. Although it only provides a generalized list for some high-risk groups, it overall covers preventive measures for UI across all age groups and both genders. The "Red Book" explicitly states that the focus of opportunistic screening includes both women and men. The strength of the recommendation for UI screening is categorized as a conditional recommendation; specifically, the target population consists of individuals with relevant risks rather than the undifferentiated general public. In primary care, GPs should prioritize case-finding and the screening of high-risk factors for UI, utilizing resources rationally and emphasizing health education. This method can effectively improve screening efficiency while avoiding the waste of unnecessary medical resources. During implementation, GPs need to flexibly adjust screening strategies based on the specific circumstances of the patient to ensure relevance and practicality. Additionally, through continuous medical education and training, physicians can further master the skills required to identify UI-related risk factors, thereby providing patients with more precise health guidance. This evidence-based practice not only helps optimize the quality of primary care services but also lays a solid foundation for the proposal of subsequent intervention measures.

The significance of early screening for UI lies in primary prevention during the early or even ultra-early stages of the disease, which aligns with the "three earlies" (early detection, early diagnosis, and early treatment) medical policy. Primary communities possess distinct advantages in the long-term management of chronic diseases, maternal healthcare, geriatric physical examinations, and continuous population follow-up. However, regarding UI as a specific condition, the awareness, treatment, and rehabilitation rates among patients in China remain at low levels—far below the standards of developed countries—and are accompanied by significant medical expenditures. Overall disease management is hindered by various adverse factors, including insufficient medical resources, inadequate clinical knowledge among primary care physicians, and poor patient compliance. Therefore, enhancing the early screening capacity of primary communities for UI is particularly important. By establishing standardized screening processes combined with effective health education, patient awareness and healthcare-seeking behavior can be gradually improved. Simultaneously, the use of information technology and telemedicine can compensate for the uneven

distribution of resources, providing patients with more convenient diagnostic and treatment services.

Chinese General Practice provides specialized training for primary care physicians to strengthen their mastery of UI-related knowledge, which helps improve diagnostic accuracy and the timeliness of interventions, thereby promoting the elevation of overall management levels. Within the actual context of China, GPs, acting as the "health gatekeepers" of the community, should fully fulfill their responsibilities and take practical actions. To fully leverage the role of the first point of contact—achieving early detection, diagnosis, and treatment to reduce the disease burden and improve the quality of life and longevity of the population—it is imperative for communities to carry out screening and intervention work focused on UI as a key disease.

Case-finding for UI should emphasize the identification, screening, prevention, and treatment of high-risk groups, advocating for the earliest possible detection of UI cases. In primary care settings, when dealing with high-risk patients, GPs should proactively inquire about urinary tract symptoms at appropriate times, even if the patients have presented for other reasons. Examples include pregnant or postpartum women, men following prostate surgery, and elderly individuals with multiple comorbidities. Due to physiological or pathological factors, these populations are more susceptible to UI-related issues. In daily clinical practice, GPs can identify potential UI cases through meticulous history-taking and targeted questioning. Furthermore, by considering the individual circumstances of the patient, they can provide personalized health guidance to help patients correctly understand the disease and adopt appropriate preventive measures.

Taking women as an example, according to the Women' s Preventive Services Initiative (WPSI),

it is recommended that women undergo annual screening for UI. Ideally, screening should assess whether a woman experiences UI and whether it affects her physical activities and quality of life.

If necessary, women should be referred for further evaluation and treatment. In practice, GPs can use questionnaires to gain a preliminary understanding of a female patient' s symptoms. By combining this with the patient' s medical history and physical examination results, they can more comprehensively determine the presence of potential issues. For patients with positive screening results, personalized health guidance should be provided promptly, and decisions regarding the need for multidisciplinary collaboration for in-depth diagnosis and treatment should be made based on specific circumstances. This approach not only helps improve the efficiency of case-finding but also enhances patients' awareness of and engagement in their own health management.

Early identification and screening of specific populations are key to implementing targeted preventive interventions, and the role played by primary care is vital. Among these, pregnant women should be a primary focus for UI screen-

ing. Research by Wu Xiaolu et al. indicates that urinary leakage or constipation during pregnancy, significant weight gain during pregnancy, marked bladder neck mobility, and the formation of a funnel at the internal urethral orifice are independent risk factors for the occurrence of stress urinary incontinence (SUI) ($OR > 1.000, P < 0.05$). Conversely, regular pelvic floor muscle training (PFMT) during pregnancy is a protective factor against SUI ($OR = 0.440, P = 0.019$); thus, it is recommended that women perform PFMT regularly during pregnancy.

For GPs, the focus should be on the identification and screening of high-risk groups and the implementation of preventive measures as early as possible. Prostate surgery in men increases the risk of postoperative UI caused by bladder outlet obstruction. Patients who have undergone prostate surgery require special attention regarding changes in their voiding function; during postoperative follow-up, physicians should proactively inquire about related symptoms and conduct evaluations using necessary diagnostic tools. Through early identification and intervention, the long-term impact of UI on a patient' s quality of life can be effectively reduced. Physicians can also develop personalized rehabilitation plans based on the patient' s specific condition, including PFMT and lifestyle adjustments, to help patients better recover their voiding function. For example, implementing early pelvic floor rehabilitation or nursing models that combine narrative medicine with pelvic floor rehabilitation can significantly improve the psychological state of patients with UI following radical prostatectomy, enhancing their sense of self-efficacy and improving their quality of life.

4.1 我国尿失禁的流行现状

From both theoretical and practical perspectives, urinary incontinence is an "invisible" condition that severely impacts women' s health. It represents a frequently overlooked global health burden and remains a common health issue among the Chinese population. Epidemiological studies in China indicate that the overall prevalence of stress urinary incontinence (SUI) among women of all age groups is approximately 18.9%, with an upward trend observed as age increases. Identified risk factors include advanced age, obesity, vaginal delivery, ethnicity, smoking, and genetic predisposition.

A recent meta-analysis revealed that the overall prevalence of SUI among adult women in China over the past decade (2013–2023) reached 23.2%. Given this high prevalence, urinary incontinence remains a significant public health challenge, particularly in the context of China' s rapidly aging population and recent changes in fertility policies. There is a critical need for further innovation, especially in implementing initiatives that encourage residents to seek medical consultation early, in order to address this widespread yet treatable condition.

It is noteworthy that the prevalence of urinary incontinence (UI) shows a significantly higher trend among specific high-risk populations. For instance, the incidence of UI among women over the age of 85 is substantial, while the preva-

lence among elderly men reaches as high as 32% [**?**, **?**]. Despite the fact that the overall prevalence of female UI exceeds 20% across various age groups, public awareness of the condition remains remarkably deficient, posing a major challenge to effective management.

Research indicates that cognitive awareness regarding UI is particularly low among patients who are older, have lower educational attainment, or report lower life satisfaction [**?**, **?**]. Furthermore, there is a significant lack of research concerning the clinical presentation and treatment strategies for UI patients within community health service centers and primary care settings. General practice strategies for promoting prevention and coping mechanisms through health education remain underdeveloped.

Consequently, issues such as a lack of social awareness and the uneven distribution of medical resources persist. The identification and intervention of urinary incontinence in China' s primary care regions are severely lacking. It is essential to advocate for community-based initiatives, led by general practitioners, to strengthen the screening of high-risk populations and enhance early-stage disease management through multiple channels.

Drawing on the relevant recommendations from the "Red Book," there is currently insufficient evidence to support universal screening for urinary incontinence in the general population. However, implementing opportunistic case-finding among high-risk populations is of significant practical value. Such targeted approaches are conducive to reducing the incidence of the condition and effectively controlling disease progression.

Strengthen opportunistic screening for urinary incontinence. Opportunistic screening should be enhanced for high-risk populations; furthermore, identifying risk factors within high-risk groups during clinical practice is a prerequisite for both opportunistic screening and systematic screening efforts.

Among the elderly population, factors such as low educational attainment (e.g., primary or junior high school), urinary incontinence during pregnancy, and a duration of chronic cough of less than five years are associated with a higher susceptibility to mixed urinary incontinence in older women. Conversely, the primary risk factors associated with male urinary incontinence···

Chinese General Practice should focus on risk factors such as prostate surgery, advanced age, prolonged bed rest, urinary tract inflammation, diabetes, cognitive impairment, and neurogenic diseases. Furthermore, regarding pregnant and postpartum populations, primary healthcare providers can efficiently identify high-risk individuals during the early stages of prenatal care, facilitating supervision and long-term follow-up interventions throughout the gestational period.

Research indicates that twelve key variables significantly influence the risk of postpartum urinary incontinence: cesarean section, vaginal delivery, maternal age $\geq$ 35 years, multiparity (number of deliveries $\geq$ 2), neonatal birth weight

$>$ 4 kg, perineal muscle dystonia, a medical history related to urinary incontinence, pre-pregnancy body mass index (BMI) $\geq$ 24 kg/m^2, perineal laceration, instrumental delivery, a history of pelvic surgery, and prolonged second stage of labor. Regardless of the age group, implementing targeted interventions based on these modifiable factors and increasing public awareness represent feasible strategies for reducing the incidence of this condition.

In alignment with the guidelines outlined in the "Red Book," clinical attention for the general population—and particularly for elderly or very old patients —should be prioritized for those suffering from respiratory diseases, diabetes, stroke, heart disease, neurological disorders, or physical disabilities, as well as those who have recently undergone surgery. Special consideration must be given to patients characterized by multimorbidity and polypharmacy. In primary care practice, general practitioners should also focus on frail elderly patients and those residing long-term in residential care facilities. To improve the effectiveness of case finding, the implementation of opportunistic screening should be strengthened.

Regarding the diagnosis and evaluation of urinary incontinence, clinical practice should begin with comprehensive medical history collection and physical examinations. The primary objective of this initial assessment is to determine the nature and severity of the incontinence, identify triggering factors, review relevant medical history, and detect any structural or functional abnormalities of the urinary tract. Building upon this foundation, differential diagnosis should be conducted through neuromuscular and pelvic floor examinations, urodynamic testing, and medical imaging. These areas also represent key directions for enhancing health education and implementing early intervention strategies within the community.

Furthermore, empowering community physicians to take a proactive "ownership" role represents a highly feasible strategy. Through frequent interactions during routine clinical practice, community physicians are well-positioned to keenly identify potential cases of urinary incontinence.

They can integrate proactive inquiries regarding relevant symptoms and conduct preliminary assessments by leveraging specific patient encounters, such as chronic disease management sessions or health record updates. Furthermore, community physicians can utilize various platforms—including home visits and health education activities—to disseminate knowledge about urinary incontinence to residents. These efforts aim to eliminate the stigma and cognitive misconceptions associated with the condition, thereby encouraging patients to seek timely assistance. This community-based opportunistic screening model not only facilitates the improvement of early detection rates for urinary incontinence but also establishes a critical foundation for subsequent intervention measures.

By adopting a "top-down and bottom-up linkage" model between community health centers and superior hospitals, opportunistic screenings can be exten-

sively implemented to identify a greater number of potential patients. The strategic positioning of primary care institutions facilitates disease prevention and control; by coordinating resources between communities and tertiary hospitals, significant results can be achieved with optimized effort. Communities can organize regular health screening activities and invite experts from superior hospitals to conduct consultations or provide technical support. This approach not only enhances the professionalism of the examinations but also strengthens residents' trust in community healthcare services.

Simultaneously, establishing a "green channel" for referrals allows suspected cases to be rapidly transferred to superior hospitals for further diagnosis and treatment, thereby shortening patient waiting times and improving clinical efficiency. Furthermore, utilizing information technology to share patient data ensures seamless communication between various levels of medical institutions, creating favorable conditions for subsequent follow-up and management. This collaborative mechanism also promotes the rational allocation of medical resources, avoiding redundant examinations and resource waste, which ultimately provides better service to populations at high risk for urinary incontinence. For instance, the combination of Magnetic Resonance Imaging (MRI) and pelvic floor ultrasound can more accurately reflect pelvic floor structures. This integrated imaging approach provides a robust basis for the early diagnosis of urinary incontinence, enabling timely clinical assessment and predictive modeling.

Implementing early comprehensive interventions requires general practitioners (GPs) to develop practical and feasible screening strategies tailored to the specific conditions of their communities, ensuring comprehensive coverage of high-risk populations. Furthermore, establishing long-term follow-up mechanisms can effectively monitor the disease progression of potential patients, providing a robust empirical basis for subsequent interventions.

At the same time, community healthcare institutions should emphasize collaborative linkages with higher-level hospitals to establish a virtuous cycle of hierarchical medical treatment, thereby optimizing resource allocation. Furthermore, strengthening public education regarding urinary incontinence and eliminating social stigma will encourage patients to proactively seek assistance, further enhancing screening efficiency and the effectiveness of subsequent interventions.

Interventions at the societal medical level primarily encompass two key dimensions. First, community-based initiatives should utilize urinary incontinence education as a foundational platform for promotion. This approach aims to deepen public understanding of the condition and enhance overall health and wellness awareness. Within the framework of establishing a hierarchical medical system, emphasis must be placed on medical technology innovation, pharmaceutical price adjustments, and the refinement of community-based rehabilitation exercise services. Second, relevant departments in general or specialized hospitals should conduct targeted screening, follow-up, and management for high-priority populations, while other departments ensure coverage and monitoring

for low-risk groups.

This paper emphasizes the leading role of community-based initiatives and suggests that community centers should prioritize health education and outreach. The content of these programs should encompass early identification, initial management, and prevention strategies for urinary incontinence. By providing health education and imparting relevant self-care skills to patients seeking general practice services, healthcare providers can advocate for lifestyle improvements among the general public. It is recommended that individuals cultivate healthy dietary and toileting habits and seek medical attention promptly when necessary, with particular focus on high-risk groups such as postpartum women and elderly patients with multiple comorbidities.

For pregnant and postpartum women, general practitioners should strengthen awareness regarding pelvic floor muscle exercises. This involves implementing standardized education and consistent supervision. Increased efforts in publicity and guidance are especially critical for vulnerable populations within this demographic to reduce the incidence of urinary incontinence during pregnancy and the postpartum period, thereby improving overall quality of life. Furthermore, group-based healthcare and intervention models can be adopted to enhance compliance and cooperation among pregnant women. For instance, combining acupuncture with Kegel exercises—interventions that are highly accessible at the community level—can yield superior preventive and therapeutic outcomes.

Regarding postmenopausal elderly women, clinical attention should be focused on identifying and addressing relevant risk factors such as advanced age, chronic constipation, and reproductive tract infections, followed by timely interventions. For male patients, opportunistic screening for urinary tract diseases should be conducted. Urodynamic examinations can be utilized to evaluate the degree of bladder outlet obstruction and detrusor function in patients with benign prostatic hyperplasia. Additionally, strengthening post-operative management for prostate surgery is essential.

The "Knowledge-Attitude-Practice" (KAP) model serves as a viable framework for managing urinary incontinence, particularly for postpartum women, elderly women, and post-prostatectomy patients [**?**]. Acquiring knowledge and maintaining positive beliefs are prerequisites for behavioral change. This widely applied and recommended theoretical model remains highly applicable to the management of urinary incontinence and is instrumental in maximizing the professional efficacy of primary care physicians. By conducting community-wide health education and popular science outreach, the community can help destigmatize this common condition, ensuring that patients no longer feel embarrassed to discuss it or avoid seeking medical help. Providing comprehensive and precise health guidance to patients with urinary incontinence enhances their understanding of the disease, which in turn boosts their self-efficacy and self-management capabilities.

Chinese General Practice helps alleviate symptoms of urinary incontinence in

patients and effectively improves their quality of life.

Further Exploration of Evidence Development

Overall, there is a notable lack of comprehensive guidelines regarding urinary incontinence (UI), and population-wide investigative research remains significantly insufficient, often limited to specific disease types or demographic groups. While China has established some expert consensuses and guidelines specifically for female stress urinary incontinence [**?**], there are currently no comprehensive UI guidelines within the scope of general practice that cover all populations and types of the condition.

Consequently, there is an urgent need to develop high-quality evidence across multiple dimensions, including: - (1) Clinical practice guidelines for general practitioners to facilitate early identification and intervention of UI; - (2) Educational manuals targeted at the general population to improve public awareness; - (3) Prognostic assessment models for diverse UI patient populations; - (4) Prevention and management strategies specifically for male UI; - (5) Epidemiological status and clinical interventions for UI in elderly women; - (6) Integrated traditional Chinese and Western medicine therapies for the prevention and treatment of UI.

Based on China' s national conditions, we should draw upon the guidelines and recommendations of the "Red Book" to prioritize case finding and opportunistic screening, enabling interventions to be implemented before the onset or during the early stages of the disease. When conducting urinary incontinence (UI) screening, efforts should not be limited solely to stress urinary incontinence or the perinatal female population. Instead, screening recommendations should comprehensively account for different types of urinary incontinence and diverse demographic groups. Furthermore, it is essential to continuously enhance public awareness and understanding of the condition, encouraging individuals to confront the disease proactively rather than adopting an attitude of "avoidance and concealment."

5 小结

This study interprets and analyzes the recommendations for screening and prevention activities regarding vision issues as outlined in the Australian RACGP "Red Book." The analysis focuses specifically on the identification of populations with urinary incontinence and the discovery of clinical cases. Based on the current national conditions in China, this paper proposes relevant recommendations for primary care communities. As "health gatekeepers," general practitioners bear a significant responsibility and mission; they should remain rooted in primary care communities and actively contribute to improving the current state of urinary incontinence screening and management.

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Community-Based Home Rehabilitation Management for Elderly Patients with Urinary Incontinence: Chinese Expert Consensus (2025 Edition)

Community Rehabilitation Committee of the China Association of Rehabilitation Medicine, Jia Jie.

Abstract

Urinary incontinence (UI) is a common geriatric syndrome that significantly impacts the quality of life, psychological well-being, and social participation of elderly individuals. As China' s population ages, the prevalence of UI among community-dwelling elderly patients is increasing, placing a substantial burden on families and the healthcare system. Effective management requires a transition from hospital-centered care to community-based home rehabilitation. This consensus, developed by the Community Rehabilitation Committee of the China Association of Rehabilitation Medicine, provides evidence-based recommendations for the screening, assessment, multi-modal intervention, and long-term management of UI in the elderly within community settings. It emphasizes a multidisciplinary approach involving primary care physicians, rehabilitation therapists, nurses, and family caregivers to optimize functional outcomes and enhance the dignity of elderly patients.

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Note: Figure translations are in progress. See original paper for figures.