

# Prescribers' opinions, preferences and attitudes on deprescribing for patients with diabetes in China:

## A nationwide cross-sectional survey

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### Background

- Inappropriate polypharmacy, defined as the concurrent use of five or more medications, is widely recognized as a risk factor for adverse health outcomes, such as higher healthcare costs, adverse drug reactions, drug interactions, decreased functional ability, medication nonadherence, and cognitive decline.
- Deprescribing, the supervised process of reducing or stopping medications to manage polypharmacy and improve outcomes, has recently become a notable method for healthcare providers to address medication-related issues.
- The limitation of Chinese studies lies in their focus on patients' attitudes towards deprescribing, while research on the attitudes of clinical practitioners towards deprescribing is lacking.

### Objective

- To assess the opinions, preferences and attitudes of prescribers regarding deprescribing for patients with diabetes in China.

### Methods

- This is a cross-sectional study that used an online validated and cross-culturally adapted comprehensive healthcare providers' opinions, preferences and attitudes towards deprescribing questionnaire.
- This survey distributed to prescribers in the Endocrine Unit from each province in mainland China.
- The 33-item questionnaire included demographic characteristics of the participants, their attitudes, opinions of barriers and facilitators towards deprescribing. All questions used a 3-point Likert scale.
- Furthermore, the association between participants' response and their characteristics was examined using logistic models.

### Results

- By March 2024, a total of 1013 valid questionnaires were received from 31 provincial administrative regions in mainland China.
- Of the 1013 prescribers, the highest percentage (46%) fell within the 30-39 age group and 327 (32.28%) were male.
- Over 90% of doctors recognized the importance of deprescribing for patients with diabetes and have a positive attitude toward deprescribing.

### Results

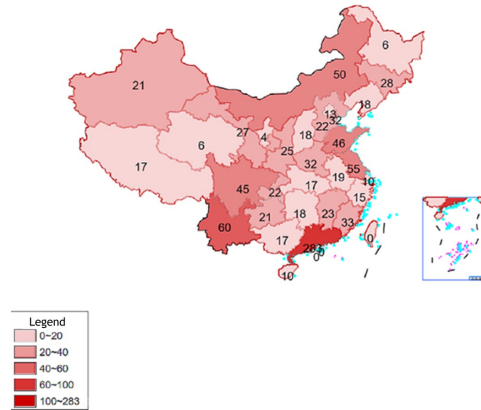


Figure 1 Sample Area Distribution Map

Table 1 Population scores on awareness, facilitators, and barriers

Factor	items	Scores of Survey Participants					Score Range
		Mean of Item Average Scores	Mean±SD	LQ	Median	UQ	
<b>Awareness</b>	<b>4</b>	<b>2.84</b>	<b>11.36±0.97</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>4~12</b>
<b>Facilitators</b>	<b>8</b>	<b>2.85</b>	<b>22.78±1.79</b>	<b>22</b>	<b>24</b>	<b>24</b>	<b>8~24</b>
patient	4	2.85	11.40±1.05	11	12	12	4~12
collaboration	1	2.77	2.77±0.44	3	3	3	1~3
competencies	2	2.86	5.72±0.67	6	6	6	2~6
healthcare system	1	2.89	2.89±0.32	3	3	3	1~3
<b>Barriers</b>	<b>10</b>	<b>2.20</b>	<b>21.99±5.16</b>	<b>18</b>	<b>21</b>	<b>26</b>	<b>10~30</b>
patient	2	2.15	4.30±1.41	3	4	6	2~6
collaboration	3	2.11	6.33±1.87	5	6	8	3~9
competencies	3	2.27	6.81±1.70	5	7	8	3~9
healthcare system	2	2.28	4.55±1.19	4	4	6	2~6

- The two most commonly agreed promoting factors among Chinese prescribers are patient-specific medical conditions, including frequent hypoglycemic episodes among patients using multiple hypoglycemic agents (94.4% of prescribers agreed) and older patients with comorbidities, (e.g., frailty, dementia) (92.7% agreed).
- Factors that frequently hinder deprescribing among Chinese prescribers include deprescribing of preventive medications (71.8% agreed) and challenges in obtaining complete patient diagnosis and medication information (70.3% agreed).
- Female prescribers showed more positive attitudes towards the recognition and promotion of deprescribing than male ones. Prescribers were more likely to participate in deprescribing if they have higher levels of education.

### Conclusion

- To our knowledge, this study is the first nationwide survey conducted in China to investigate the opinions, preferences and attitudes of Chinese prescribers regarding deprescribing for patients with diabetes.
- The results highlight specific areas that could be targeted to engage healthcare providers in deprescribing.

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