

Knowledge, Attitudes and Practices (KAP) Among Cardiologists, Endocrinologists and Nephrologists on Herpes Zoster (HZ) and HZ Vaccination for Patients with Comorbidities in Mainland China, Japan, South Korea and Taiwan

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Objective

- To assess specialists' knowledge, perceptions and behaviours regarding herpes zoster (HZ) and HZ vaccination for patients with cardiovascular diseases (CVD), type 2 diabetes mellitus (T2DM) and chronic kidney disease (CKD) who are at higher risk of HZ.

Results

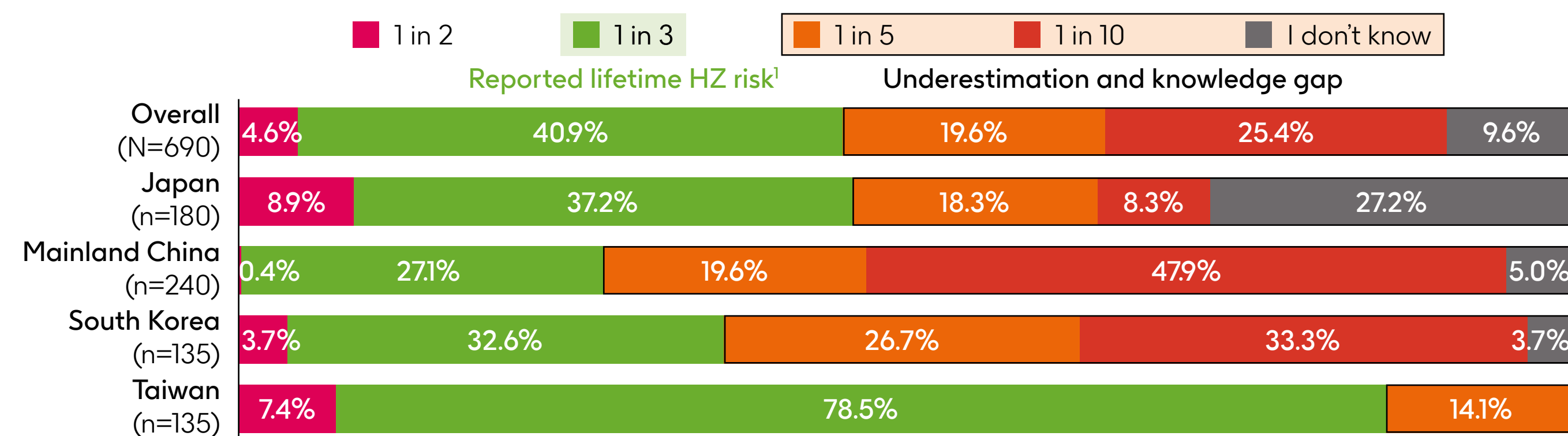
Characteristics of surveyed specialists

- 690 specialists completed the survey, with regional/specialty distribution as planned.
- Specialists were mostly aged 40–49 years (46.5%) with 11–20 years of practice (48.1%).

Perception of HZ risk

- 44.9% of specialists underestimated lifetime HZ risk in the general population as <1 in 3. The proportion varied by locales (Figure 1) and across specialties.
- Perceived HZ risk was highest for patients with T2DM/CKD/heart failure (HF) by >85% of specialists in most locales.

Figure 1: Specialists' estimates of lifetime HZ risk in the general population



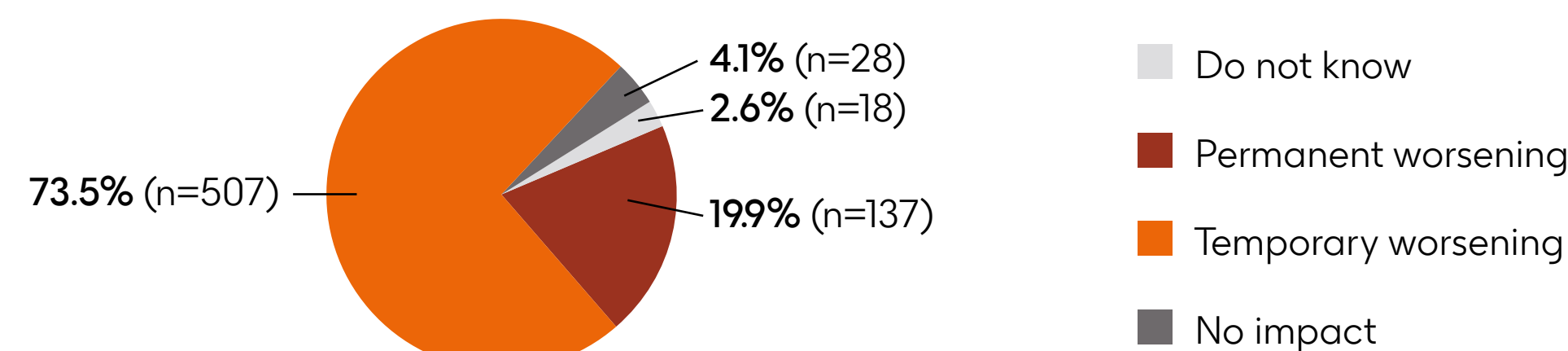
Perception of HZ burden and impact

- Most specialists indicated HZ could temporarily (days–weeks) or permanently worsen underlying conditions (Figure 2A). Among them, most anticipated increased monitoring/follow-up and temporary treatment disruptions post-HZ (Figure 2B).

Figure 2: Impact of HZ on a patients' underlying disease and its management perceived by specialists

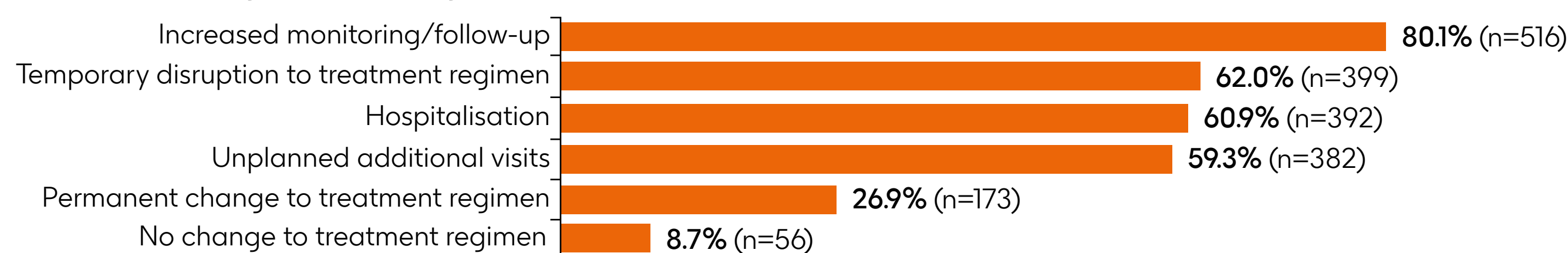
A) What could be the impact of an HZ episode (including its management) on a patients' underlying condition? (N=690)

Respondents could select only one option.



B) What could be the impact of an HZ episode (including its management) on the management of a patients' underlying condition? (n=644)

Respondents could select multiple options. This question was only posed to specialists who indicated that HZ may cause temporary/permanent worsening of disease in Figure 2A.



Vaccine recommendations

- Overall, 639 specialists (92.6%) reported that they played some role in vaccinating patients with CVD, T2DM and CKD.
 - Specialists in Japan, South Korea and Taiwan reported high active involvement in both recommending and prescribing vaccines, whereas advisory-only roles were more common in Mainland China.
 - Among specialists who reported involvement in vaccination across the four locales, 89.1–94.5% (n=197–206) across specialties recommended HZ vaccination to patients with myocardial infarction (MI), HF, T2DM and CKD. Patients with recent HF, poorly-controlled T2DM, advanced CKD or aged ≥65 years were generally prioritised (Figure 3).



Specialists across Asia recognised the impact of HZ on patients with underlying diseases (e.g. CKD, CVD and T2DM). Specialists generally recommended HZ vaccination for these patients who are at higher risk of HZ, and prioritised HZ vaccination in those with severe conditions. Overall, there remains a need for tailored initiatives and guideline updates by professional bodies to optimise HZ prevention in adults 50 years and older with CKD, CVD and T2DM.

Methods

- A cross-sectional quantitative online survey was conducted among cardiologists, endocrinologists and nephrologists in Mainland China, Japan, South Korea and Taiwan.

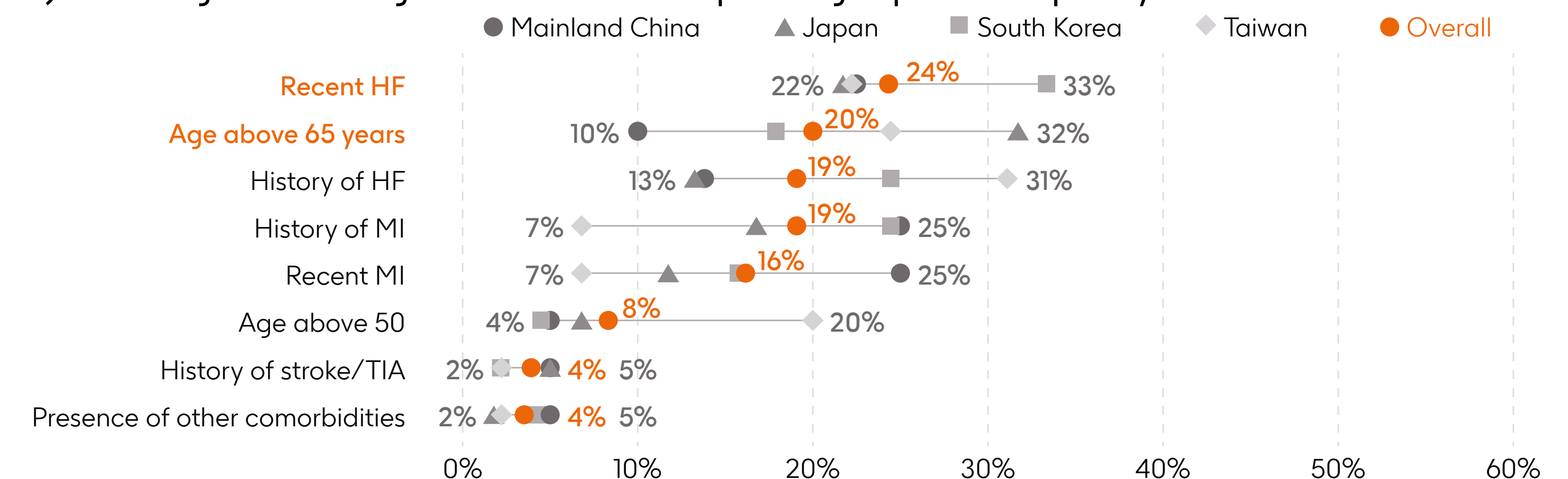
— Total: N=690

n=230 per specialty			
Mainland China n=80	Japan n=60	South Korea n=45	Taiwan n=45

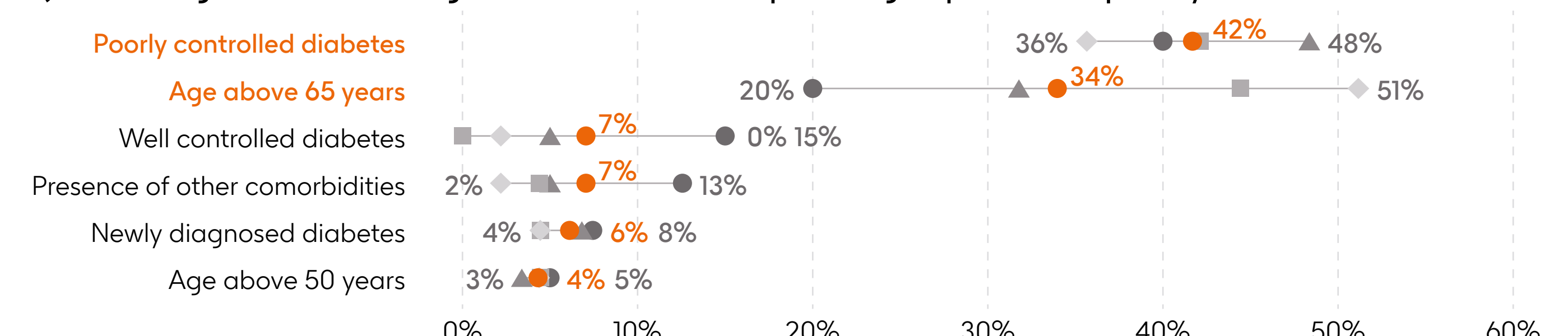
- The survey assessed specialists' knowledge of HZ, its risk in and impact on patients with selected chronic conditions, as well as perceptions and practices regarding HZ vaccination for these patients.
- Eligible specialists were recruited using quota-based sampling by specialty and locale. Findings reflect self-reported perceptions and practices and may not be generalisable to all specialists or clinical settings.

Figure 3: Prioritisation of patients for HZ vaccination across specialties

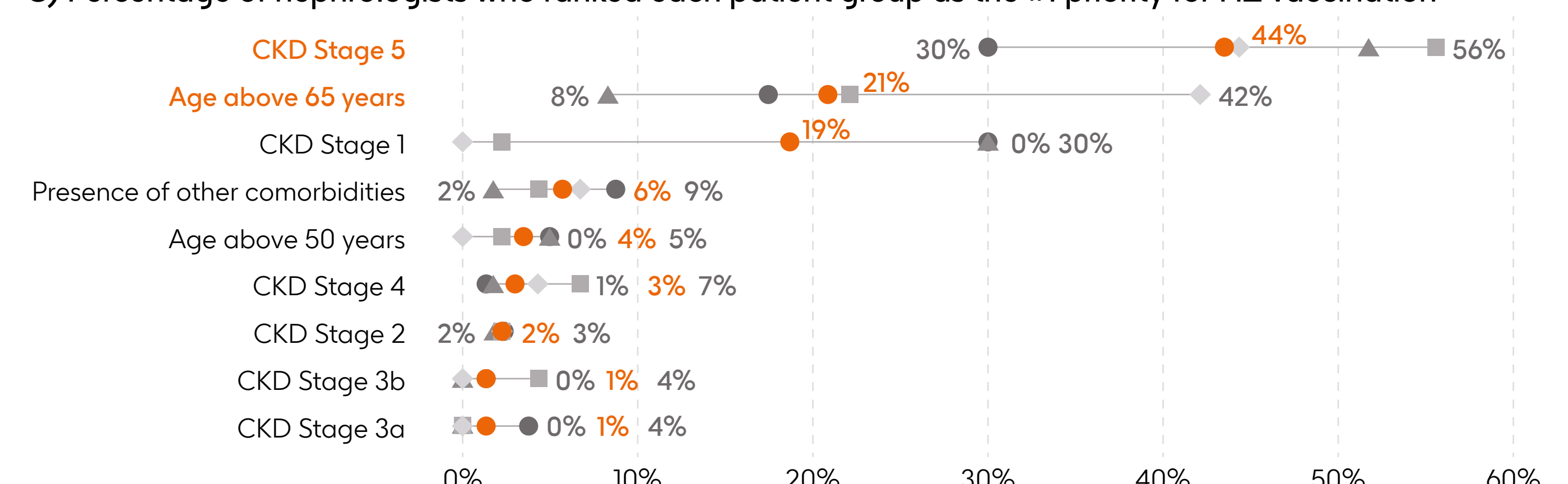
A) Percentage of cardiologists who ranked each patient group as the #1 priority for HZ vaccination



B) Percentage of endocrinologists who ranked each patient group as the #1 priority for HZ vaccination



C) Percentage of nephrologists who ranked each patient group as the #1 priority for HZ vaccination



Respondents could assign the same rank to more than one option. Orange circles represent the overall percentage of specialists across locales (Mainland China, Japan, South Korea and Taiwan) who ranked each factor as 'Rank 1'. Grey whiskers represent the range (minimum to maximum) of locale-specific percentages, with the values at each end indicating the lowest and highest percentages observed across the four locales.

- Top 3 drivers:** Among specialists who recommended HZ vaccines, key facilitators were reducing HZ risk (62.9%), avoiding complications/destabilisation of underlying conditions (57.5%) and preventing additional treatment burden/hospitalisation (55.1%).
- Top 3 barriers:** 18 specialists reported recommending other vaccines but not HZ vaccines, citing lower risk versus other vaccine-preventable diseases (n=7), vaccine costs (n=5) and low patient demand (n=3).
- Specialists mainly referenced local professional societies or governmental bodies for vaccination recommendations, including Centers for Disease Control and Prevention (Mainland China/Taiwan) and specialty-specific societies (Japan; JCS, JDS, JSN).
 - In South Korea, cardiologists and nephrologists primarily followed American (AHA) and international (KDIGO) guidelines, respectively; endocrinologists followed local recommending bodies (KDA).
 - Regional recommending bodies, such as APSC and APSN, were less frequently referenced by specialists across locales for the purpose of vaccination, potentially due to the lack of specific vaccine-related recommendations within their guidelines.^{2,3}

Background

- HZ, commonly known as shingles, presents as a painful, unilateral blistering rash.^{4,5} Approximately 1 in 3 persons in the general population will develop HZ during their lifetime.¹
- Patients with CVD, T2DM and CKD are at higher risk of HZ and HZ-related complications.^{6–10}
- Given specialists' roles in the care of patients with these underlying conditions, understanding their perspectives towards HZ prevention is important for holistic patient care and optimisation of patient outcomes.

Conclusions



While specialists underestimated lifetime HZ risk, they reported HZ could impact the underlying health conditions or treatments and prioritised HZ vaccination in patients with severe conditions.



Tailored initiatives are needed to address specialists' remaining knowledge gaps and encourage HZ vaccine conversations and recommendations for patients at increased HZ risk, to support holistic patient care. This includes advocating for guideline updates by relevant professional bodies across locales and in the region.

Abbreviations

AHA, American Heart Association; APSC, Asian Pacific Society of Cardiology; APSN, Asian Pacific Society of Nephrology; CKD, chronic kidney disease; CVD, cardiovascular disease; HF, heart failure; HZ, herpes zoster; JCS, Japanese Circulation Society; JDS, Japan Diabetes Society; JSN, Japanese Society of Nephrology; KDA, Korean Diabetes Association; KDIGO, Kidney Disease – Improving Global Outcomes; MI, myocardial infarction; T2DM, type 2 diabetes mellitus; TIA, transient ischaemic attack.

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