

Canadian Pharmacist Needs Assessment in the Management of Anticoagulation Therapy: Results of the International Pharmacists for Anticoagulation Care Taskforce (iPACT) Survey



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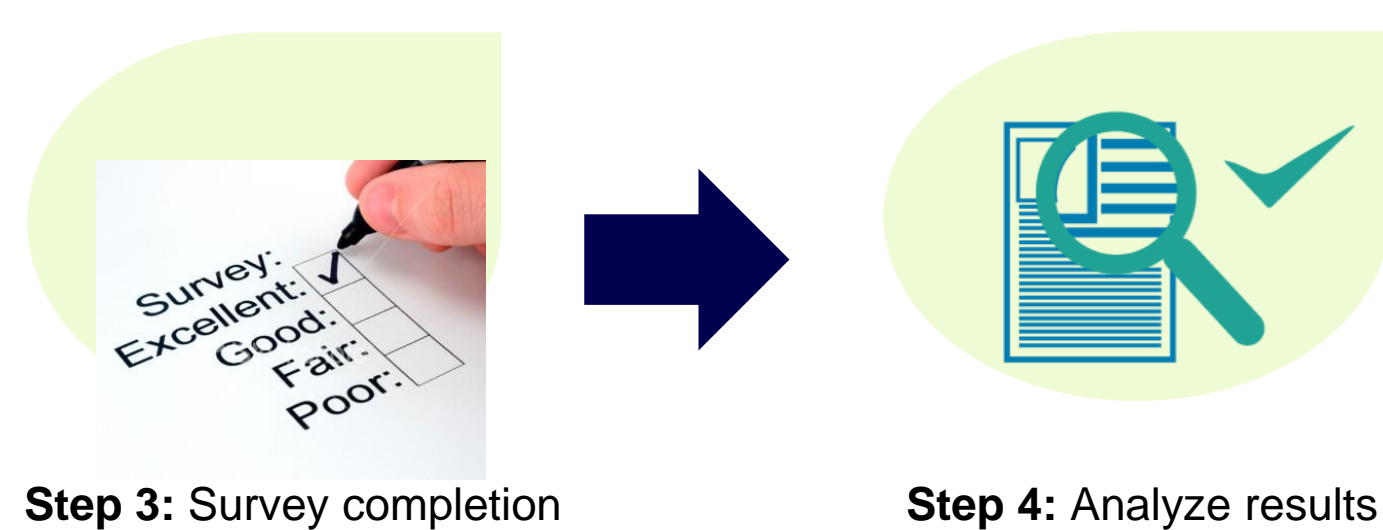
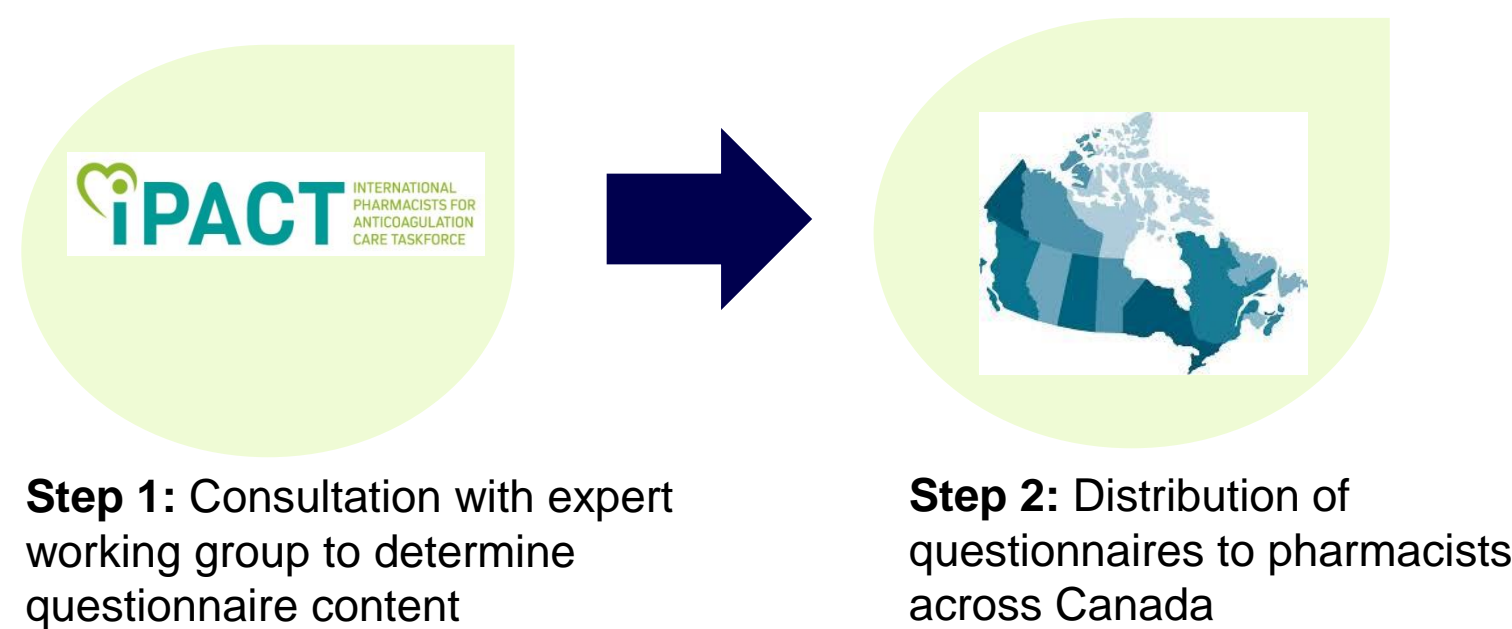
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1. Introduction and Aim

The International Pharmacists for Anticoagulation Care Taskforce (iPACT) is an expert group committed to enhancing the key role that pharmacists play in anticoagulation management. Pharmacists are ideally suited to monitor patients in this therapeutic area, however, an assessment of their knowledge in providing consultations has not been formally evaluated.

The objective of this needs assessment survey is to identify self-reported gaps in competences and confidence among practicing pharmacists in the area of anticoagulation.

2. Methods



Sample Questions

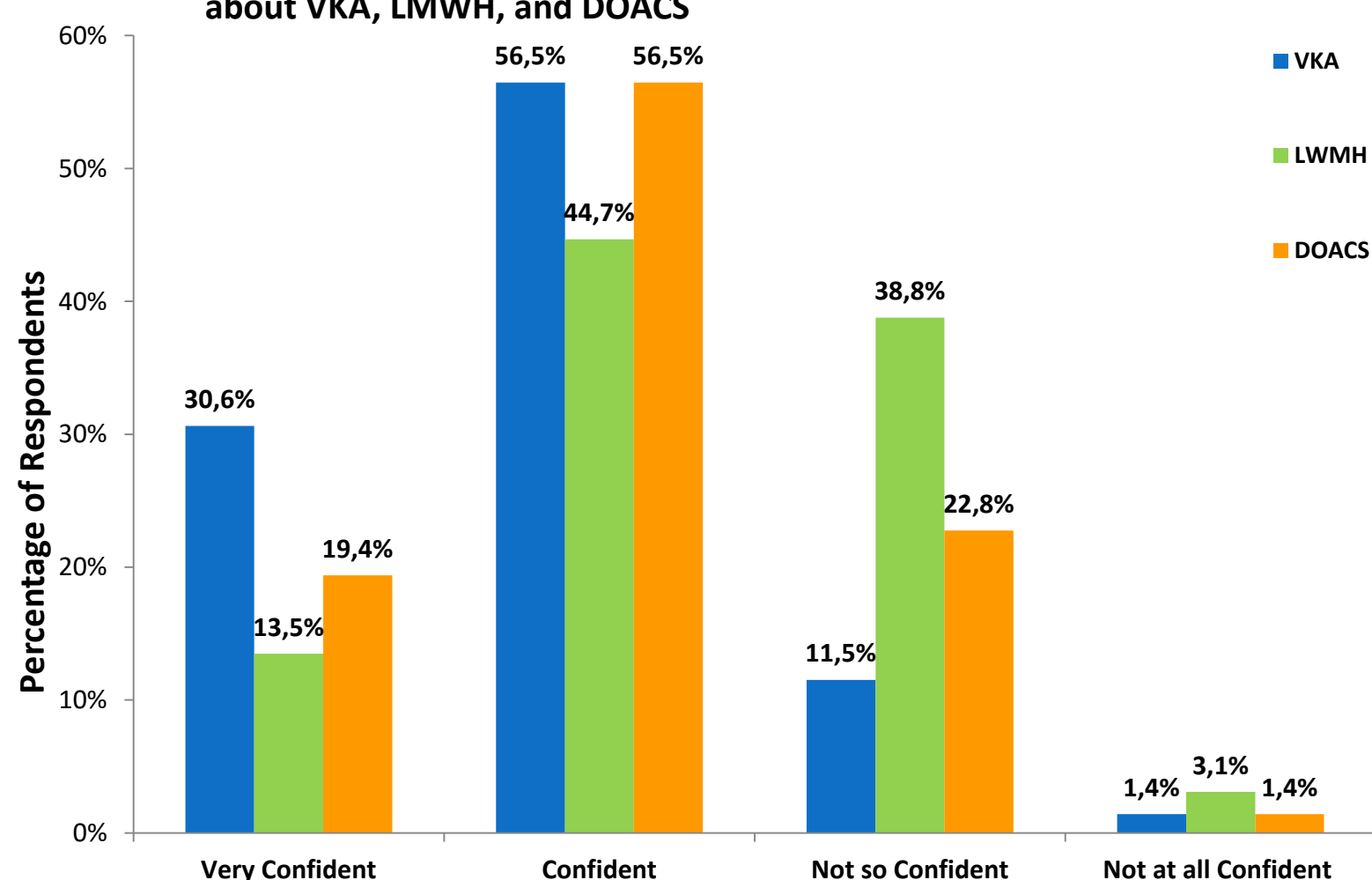
- Providing Patients with Necessary Information:** How confident are you with providing the necessary information to patients receiving...
 - Vitamin k antagonists (VKA's) such as warfarin and coumarins?
 - Low molecular weight heparins (LMWH's)?
 - Direct oral anticoagulants (NOAC's, DOAC's) such as apixaban, dabigatran, edoxaban and rivaroxaban?
- Discussing Benefits, Indications, and Adverse Reactions with Patients:** How confident do you feel discussing the following with patients...
 - The benefits of anticoagulation therapy?
 - The indications of anticoagulation therapy?
 - The adverse effects of anticoagulant therapy?
- Discussing Management of Adverse Effects:** How confident do you feel in discussing the management of the following with patients...
 - Bleeding risk?
 - Bleeding events?
 - INR and change to therapy?

3. Results - Demographics

Table 1: Summary of respondent demographics

Characteristic	n, (%)
Respondents	356
Sex	
Female	195 (54.78)
Male	161 (45.22)
Age	
18-29	42 (11.80)
30-39	110 (30.90)
40-50	129 (36.24)
>50	75 (21.07)
Work Experience (Years)	
<5	54 (15.17)
6-10	59 (16.57)
11-15	74 (20.79)
16-20	50 (14.04)
>20	119 (33.43)
Education	
Bachelors	296 (83.15)
MSc	24 (6.74)
PharmD	26 (7.30)
PhD	3 (0.84)
Other	7 (1.97)

Figure 1 - Confidence level of pharmacists when providing general information about VKA, LMWH, and DOACs



4. Results – Survey Responses

Figure 2 - Comparison of pharmacist confidence levels for providing patient information on the benefits, indication, and adverse reactions of anticoagulation therapy

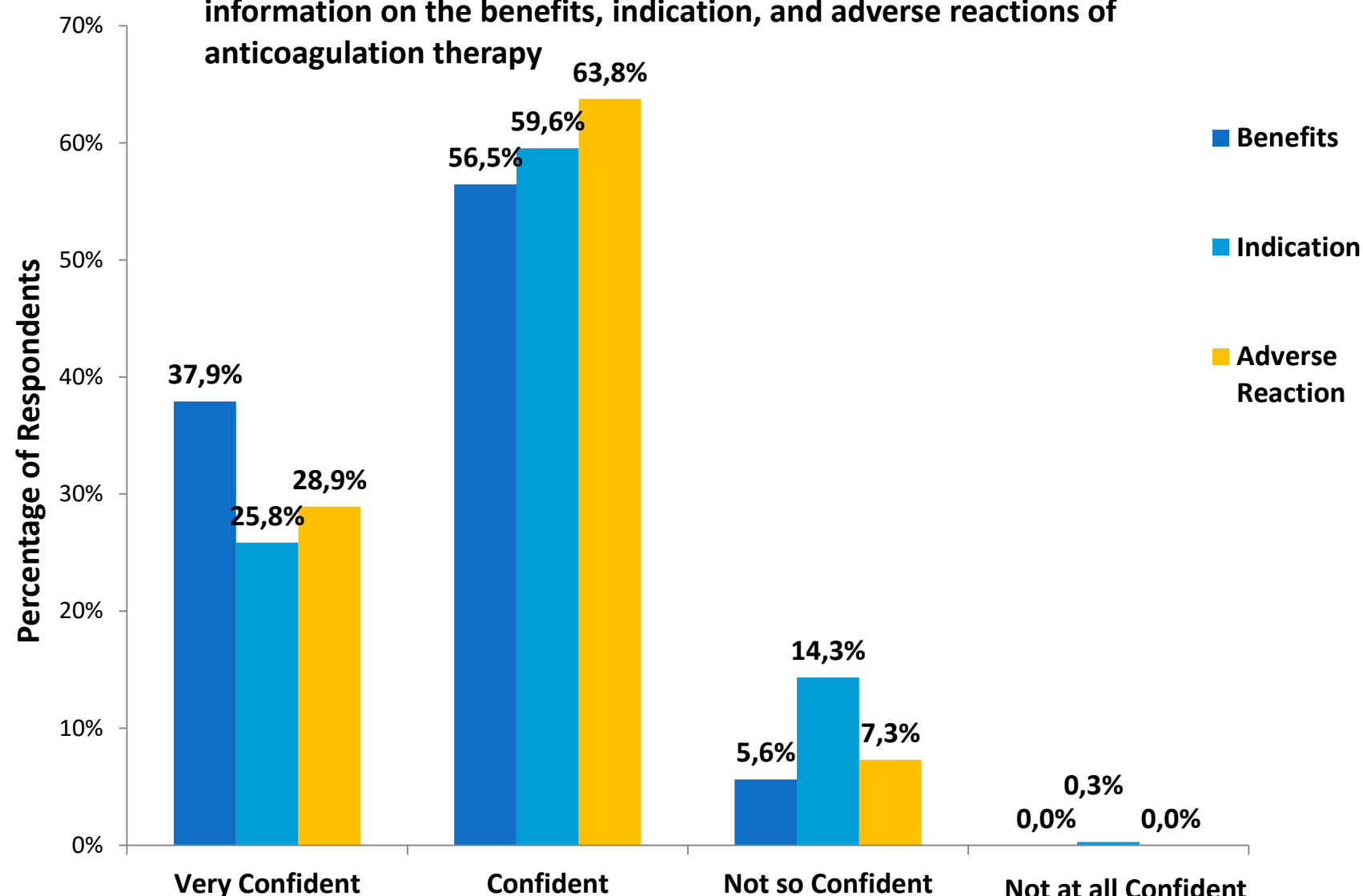


Figure 3 - Comparison of pharmacist confidence levels in the management of bleeding risk, bleeding events, and INR monitoring and changes to therapy.

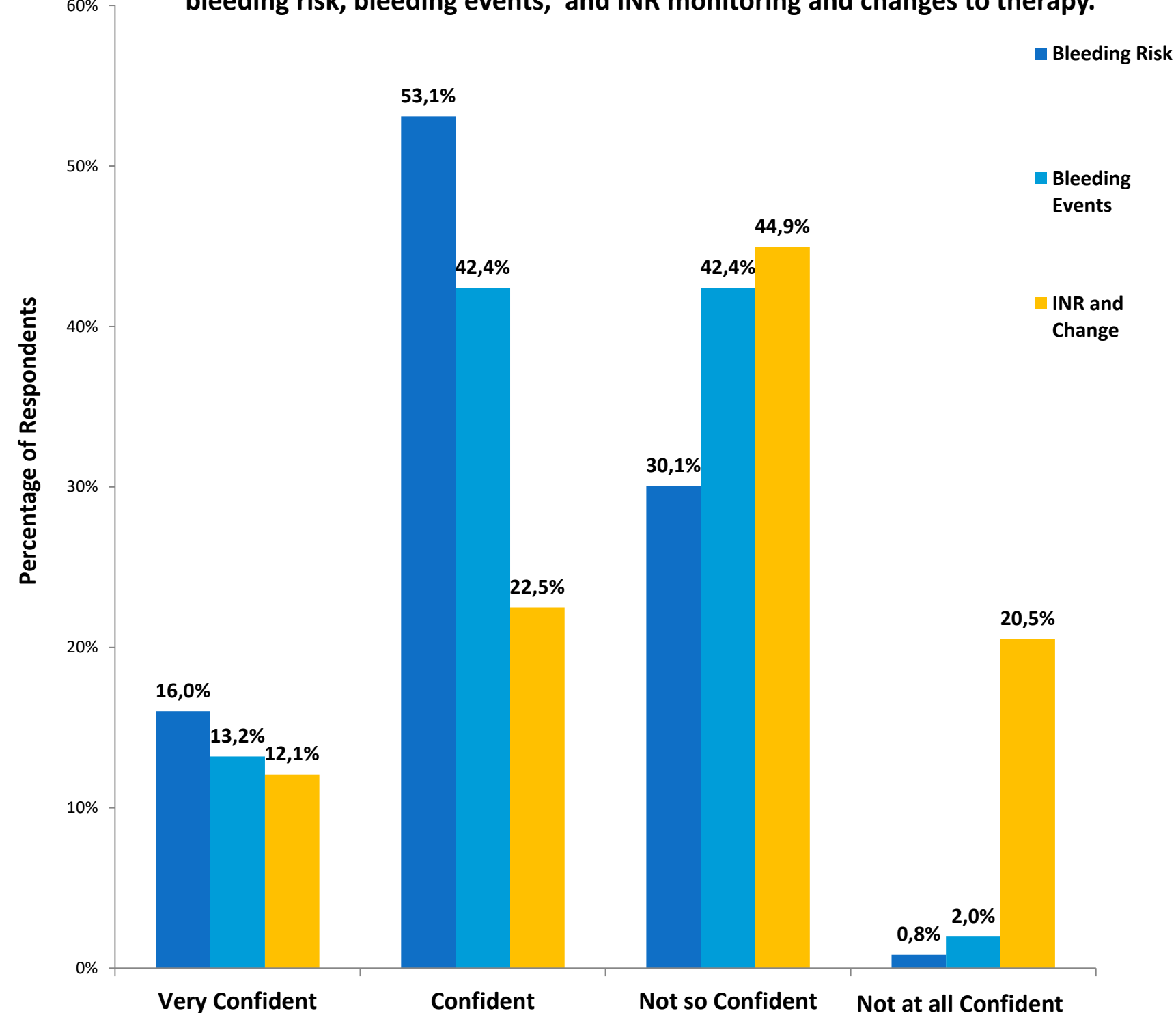
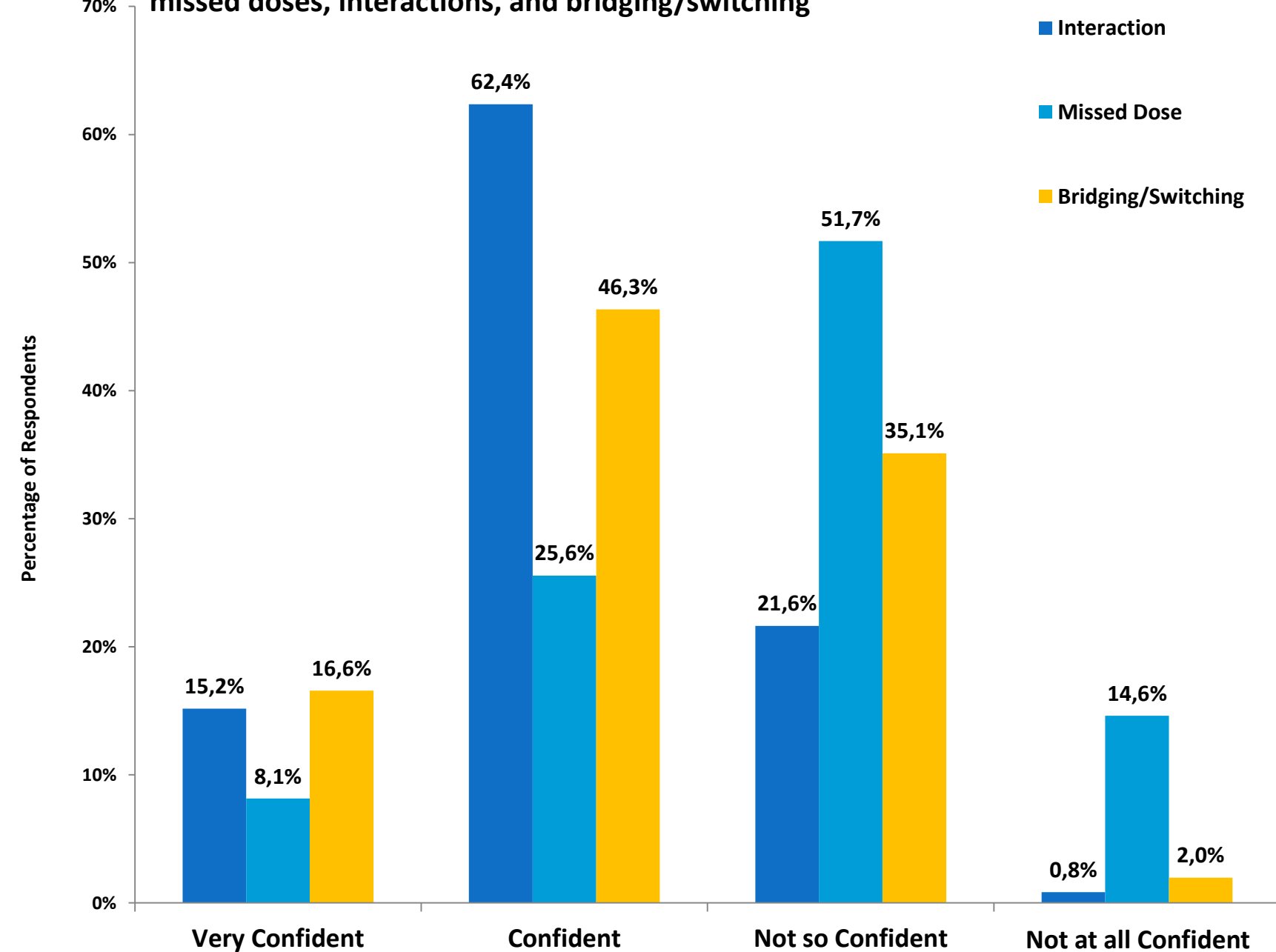


Figure 4 – Comparison of pharmacist confidence levels in the management of missed doses, interactions, and bridging/switching



5. Conclusions

These results highlight an apparent lack of confidence by community pharmacists when discussing anticoagulation. Key findings include:

- Only 24.9% of pharmacists reported feeling very confident discussing indications for oral anticoagulation with patients.
- Pharmacists are more confident with providing general information about VKA (30.6%) when compared to both LMWH (13.5%) and DOACs (19.4%).
- Pharmacists are more confident discussing the benefits (37.9%) of anticoagulation as opposed to discussing associated indications (25.8%) and adverse events (28.9%).
- At least one third of pharmacists are not so confident discussing bleeding risk, managing bleeding events, or warfarin dose changes with patients.
- 92.0% of pharmacists reported they would like additional education in anticoagulation with personalized e-learning as the preferred source.

Future educational programs should be developed with a focus on practical clinical themes including management of bleeding, adverse events, and bridging between agents.

6. Contact Details

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