Table S6 Illustrative quotations for recommendation themes and subthemes

Themes & subthemes	Quotations from participants in primary study	Interpretations of findings offered by authors
Prescriber-related factors		
implementation techniques (67,72)	Straightaway my first thought was what are the low flying ones that we can get rid of[67]	Strategies included targeting medicines that are easier to deprescribe in the first instance, adopting a gradual approach to changing medicine regimens and deferring to patients in making a deprescribing decision[67]
	When people first come, I don't usually go OK well we need to stop this, this, this, this and this. I mean, you've got to gain some sort of confidence that you know what you are doing[72]	A common response was to take a conservative approach, deferring any attempt to intervene and cease PIMs until the circumstances were most favourable for obtaining patient engagement[72]
	It means that you wouldn't also stop some medicine that protects their bones, alendronate, cholecalciferol, Caltrate. Even (if) the Caltrate is contributing to the constipation, find something else to blame[67]	The more unstable or ill the patient or the more complicated the issues, the better to find an alternative path to avoid creating a more serious risk, especially among patients who express no desire or expectation for change in their medicines[67]
repeated positive experience (67, 68)	I think, as you get older, you realize that is not really true because you have done it so many times and they have not had a stroke the next week[67]	The exchange between these participants demonstrates how repeated positive experiences can shift the risk frame. It also again reinforces the desire for better evidence that deprescribing is safe and effective[67]
professional training (66, 69, 70, 74)	Maybe if there was some sort of training about how to review those [PIP] that would be good [...] and some sort of training so then it makes us aware that 'right, we are going to look out for' you know[69]	The participating GPs experienced the CME group meetings as an important arena for learning. They reported picking up good advice from others and learning practical alternatives to drugs that should not be used[73]
	If it [medication reviews] could be incorporated into your CPD [continuing professional development], I know pharmacists who would be much more inclined to do it because we are all trying to clock up our CPD hours[69]	Pharmacists believed their pharmacology/therapeutics knowledge to be sufficient to identify PIP but stressed the need for continuing professional education to bring their knowledge in line with new medications and most up-to-date guidelines[69]
reflective in decision-making (74)	The whole point is to reflect more, that you think twice, and with respect to this it has been a good project. It should have been done within other areas too[74]	One important outcome for the GPs was an experience of being more reflective in decision-making about prescriptions[74]
clinical monitoring (65, 72)	Before I start anybody [on NSAIDs] I always check their renal function make sure their eGFR is good[72]	Risk stratification of potential harm could be conducted for some PIMs prior to commencement of therapy and, once a PIM was being used, monitoring of side-effects could be instituted[72]
Patient-related factors		
public health campaigns (69)	Well those IPU [Irish Pharmacy Union] and HSE [Health Services Executive] campaigns about generic medications for example, have been very successful. I think a similar campaign along the lines of 'do you need everything you are taking?'. Or encouraging patients to go to their doctor[69]	Suggested initiatives were campaigns from health authorities to patients and/or healthcare providers (Table 1). The purpose of these campaigns should be to inform patients or GP about particularly problematic drug classes and raise awareness69
caregiver assistance (66)	It helps if there's a caregiver or someone in the family who comes with them [...] sometimes you can't complete medication reconciliation with the veteran themselves in that situation, so you have to rely on caregivers[66]	Presence of a caregiver or someone who had knowledge of the patient's medication administration in this situation was felt to be very helpful in achieving accurate medication reconciliation[66]
Improved patient-physician interaction (63-65, 67, 70, 71, 73)	I take the decision and we don't know if there will be a side effect, but they have to trust me that the medication is right for them. They are not able to understand all this, I don't even know if they understand me[64]	GPs communication skills (e.g. the ability to use patient-centred language or to structure the conversation) and attitude towards shared decision-making were determinants on a healthcare-professional level[64]
	Given an education to the patient[73]	Patient counseling/education In the present study, the FPs also highlighted the need for improving patients' awareness on such issues[73]
	But that's the starting point — to establish what the relationship is. I guess that's my point. So, until you know what the relationship is — whether it is an ongoing relationship or whether it's an episodic one; then that would lead to where you take the consultation and if it's appropriate. That's the starting point: who the person's	An underpinning element to working through uncertainties with regard to deprescribing was the consideration of relationships. For GP participants, a continuous therapeutic relationship with a patient was critical to better assessing harms and benefits and committing to the potentially protracted process of deprescribing[67]

	primary GP is[67]	
	The electronic communication is wonderful. It avoids the whole issue of phone tag. It avoids the whole issue of someone having to give their message to another person, which often distorts the meaning of the request. The asynchronous communication makes all communication easier[66]	The direct patient contact via SM reduced time spent in "phone tag" (ie, leaving messages for the patient to call back) and providers reported feeling like communication was easier and often more descriptive[66]
	A recall that sends out something to the patient every year and says, "Next time you're at the doctor make sure to look over the pills."[70]	activating patients to become more involved in medicines management and alert to the possibility that less might be better[70]
Environment-related factors		
financial remuneration (69, 70)	I suppose it's [PIP] a bit under the radar in a lot of my daily work because you are not incentivised to look for it [...] Well it's really a case of your incentives. You know, you are not incentivised to do it. It does not really benefit you directly at all[69]	State reimbursement, or professional acknowledgement, for doing medication reviews was both considered to be motivating factors to do medication reviews[69]
cross-disciplinary collaboration (64, 66-70, 73)	I would love [for pharmacists] to review the prescriptions with the patient after the visit. If there was...a real problem patient... If I could say to them, look I'm really having a problem with this patient. He brought all his medications in but he's also in congestive heart failure or he's worse or whatever problem I might need to deal with that day, could you go over his meds with him[66]	A majority of providers envisioned a scenario where a pharmacist or clinical staff member performed detailed medication reconciliation prior to the provider's visit. This could minimize the time necessary for medication reconciliation by the provider, freeing up time to discuss clinical issues[66]
	That strategy of phoning specialists there and then, in front of them—we collaborate on this and this is what we are doing[67]	Good working relationships, that is, between GPs and CPs or in the following case between a GP and specialist, facilitated timely, collaborative deprescribing decisions[67]
	The channels need to be a bit more open. Sometimes they are very closed and if they [the doctors] were a bit more open and a bit more receptive to what our [pharmacists] role as like a professional could be[69]	Suggested improvements included more direct lines of communication and willingness to collaborate from all parties. Geographic proximity and face-to-face interaction were believed to be key facilitators of a good collaborative relationship[69]
workflow optimisation (64, 66, 69, 70)	I think it can also get to the point of it much more succinctly. Not to be antisocial, but you don't have to deal with the niceties of 'How are you feeling today?' They write you with whatever is the concern and you respond to it[66]	The team-based model of SM triage means that providers never saw many of the messages that patients addressed to them, as team members were able to answer and fulfill requests by SM with minimal or no provider input, something providers appreciated[66]
	You need some funded time with the patient so that you can bring the patient in and say "This is a special appointment that's not to talk about your current medical problems, it's specifically about managing your medicines better."[70]	Protected time to review medications facilitated by extra pharmacist staff was a suggested solution[69]
Technology-related factors		
electronic health record optimisation (66, 70, 73)	An alert would give you a little bit of courage to do it, or give you more reassurance, or give you a way to bring it up with the patient like, "Look, you see, the computer has noticed you're on too many medications, maybe we can reduce it"[70]	Providers imagined a variety of approaches to improve medication reconciliation, many involving streamlining the EHR to identify errors and interactions[66]
	I feel that must have a chat in the system between the physicians[73]	A need for technology and/or a system: better communication between physicians and health care providers[73]
advanced technical aids (65-67, 70, 73)	It would be good to have some figures so—there is going to be a big push to be not prescribing statins forever—so some figures to back it up[67]	Better evidence that deprescribing is safe and effective and decision support provided in a format that is easily accessible at the point of care (e.g., integrated into the practice software) for use in discussion with patients was offered by participants as a key facilitative strategy[67]
	I've recently come across an app, which I have on my iPad [MedStopper], and you can put in the medication list there and it will prioritize them for you. So, that's a really neat little tool[70]	Improved access to expert advice and user-friendly decision support[70]
	I think we need multi-morbidity guidelines, the commonest multi-morbidities like chronic pain from arthritis and heart	Updating guidelines to include advice on when to consider stopping medicines, developing new guidelines for the

	failure and diabetes together[70]	management of common comorbidities, tools and resources to assist in the communication of risk to patients[70]
	I simply find it better to have concrete recommendations made for the elderly. […] I would prefer something with a positive formulation[65]	Rather than having a black- list "banning" certain medications, they would prefer a whitelist indicating which medications can be safely used for elderly patients[65]