

The Patient Evaluation of the Deprescribing Process Questionnaire (PED-Q): A new tool for practice and trials

Sion Scott

Behavioural and implementation scientist

Hospital pharmacist

Funded by:



The U.S. Deprescribing Research
Network is funded by the
National Institute on Aging,
Grants No. R33AG086944 and
R24AG064025.

- INNOVATE UK (UK Government Department for Science, Innovation and Technology) Knowledge Transfer Partnership with Desitin Pharma Ltd.
- No other disclosures.

| | |
|--|--|
| Dr Sion Scott University of East Anglia, UK | Mrs Sujata Walkerley Patient and public involvement member |
| Ms Lizzie Bywater-Florence University of East Anglia | Dr Carina Lundby University of Southern Denmark, Denmark |
| Professor Anne Spinewine Université catholique de Louvain, Belgium | Dr Wade Thompson University of British Columbia, Canada |
| Professor Debi Bhattacharya University of East Anglia, UK | |

- Patient attitude towards deprescribing versus patient deprescribing behaviour
- Discriminant content validity methodology
- Validation of the Patient Evaluation of the Deprescribing process Questionnaire (PED-Q)





Norwich Research Park is one of the largest single-site concentrations of research in food, genomics, and health in Europe.

- **England's second city**



- England's second city
- Birthplace of Colman's mustard



- England's second city
- Birthplace of Colman's mustard
- Avengers HQ

MARVEL

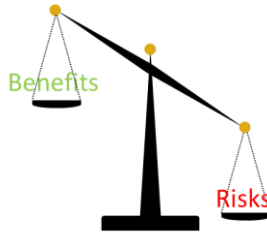


- England's second city
- Birthplace of Colman's mustard
- Avengers HQ

MARVEL



- 51.3% of older hospital patients (≥ 65 years) prescribed at least one potentially inappropriate medicine on admission
 - Morbidity, mortality and rehospitalisation
- <1% of older hospital patients have a medicine deprescribed



MISSED OPPORTUNITY



Journals of Gerontology: Medical Sciences
cite as: *J Gerontol A Biol Sci Med Sci*, 2022, Vol. 77, No. 5, 1020–1034
<https://doi.org/10.1093/geron/qlab222>
Advance Access publication August 14, 2021



Review

Consumer Attitudes Towards Deprescribing: A Systematic Review and Meta-Analysis

Kristie Rebecca Weir, PhD,^{1,2,*} Nagham J. Ailabouni, PhD,¹ Carl R. Schneider, PhD,³ Sarah N. Hilmer, FRACP, PhD,^{4,5,6,7,8} and Emily Reeve, PhD^{1,8}

¹University of South Australia, UniSA: Clinical and Health Sciences, Quality Use of Medicines and Pharmacy Research Centre (QUMPRC), Adelaide, SA, Australia. ²University of Sydney, Sydney School of Public Health, Faculty of Medicine and Health, Sydney, NSW, Australia. ³University of Sydney, School of Pharmacy, Faculty of Medicine and Health, Sydney, NSW, Australia. ⁴University of Sydney, Kolling Institute of Medical Research, Royal North Shore Hospital, Sydney, NSW, Australia. ⁵Department of Clinical Pharmacology, Royal North Shore Hospital, St Leonards, NSW, Australia. ⁶Department of Aged Care, Royal North Shore Hospital, St Leonards, NSW, Australia. ⁷University of Sydney, Northern Clinical School, Faculty of Medicine and Health, Sydney, NSW, Australia. ⁸Dalhousie University and Nova Scotia Health Authority, Geriatric Medicine Research, Faculty of Medicine, and College of Pharmacy, Halifax, Canada.

*Address correspondence to: Kristie Rebecca Weir, PhD, The University of Sydney, Weir Room 128C, Edward Ford Building (A27), Camperdown, NSW 2006, Australia. E-mail: kristie.weir@sydney.edu.au

Received: March 7, 2021; Editorial Decision Date: July 16, 2021

Decision Editor: Jay Magaziner, PhD, MSHyg

Abstract

Background: Harmful and/or unnecessary medication use in older adults is common. This indicates deprescribing (supervised withdrawal of inappropriate medicines) is not happening as often as it should. This study aimed to synthesize the results of the Patients' Attitudes Towards Deprescribing (PATD) questionnaire (and revised versions).

Methods: Databases were searched from January 2013 to March 2020. Google Scholar was used for citation searching of the development and validation manuscripts to identify original research using the validated PATD, revised PATD (older adult and caregiver versions), and the version for people with cognitive impairment (rPATDcog). Two authors extracted data independently. A meta-analysis of proportions (random-effects model) was conducted with subgroup meta-analyses for setting and population. The primary outcome was the question: "If my doctor said it was possible, I would be willing to stop one or more of my medicines." Secondary outcomes were associations between participant characteristics and primary outcome and other (r)PATD results.

Results: We included 46 articles describing 40 studies ($n = 10,816$ participants). The meta-analysis found the proportion of participants who agreed or strongly agreed with this statement was 84% (95% CI 81%–88%) and 80% (95% CI 74%–86%) in patients and caregivers, respectively, with significant heterogeneity ($I^2 = 95\%$ and 77%).

Conclusion: Consumers reported willingness to have a medication deprescribed although results should be interpreted with caution due to heterogeneity. The findings from this study moves toward understanding attitudes toward deprescribing, which could increase the discussion and uptake of deprescribing recommendations in clinical practice.

Keywords: Caregivers, Inappropriate prescribing, Medications, Older adults, Polypharmacy

Internationally, there has been focus on the increasing prevalence and harms of multiple medication use in the older population (1). As people age, there may be changes in medical conditions and other medications, as well as a change in their preferences and treatment goals, which can shift medications toward an unfavor-

able benefit to risk ratio (2). A medication is considered inappropriate when potential harms outweigh potential benefits in the individual (3). An American study of older veterans ($n = 462,405$) found that 50% were dispensed one or more potentially inappropriate medications (4). The use of potentially inappropriate medi-

84% of patients and 80% of caregivers agree or strongly agree with “If my doctor said it was possible, I would be willing to stop one or more of my medicines.”

Up to half of patients decline a deprescribing proposal

- SENATOR (n=1,537 patients): 85% of deprescribing proposals were declined
- D-PRESCRIBE (n= 489 patients): Two thirds declined
- CHARMER
- 2023 systematic review of 56 studies reporting the determinants of deprescribing in primary care
 - Main reason for healthcare professionals failing to deprescribe is patients declining

**Willingness
(hypothetical)**



**Deprescribing
behaviour**

1. Patient and caregivers are not telling the truth

1. Patient and caregivers are not telling the truth

OR

2. Something is going wrong with the patient experience during the deprescribing process

1. Patient and caregivers are not telling the truth



OR

2. Something is going wrong with the patient experience during the deprescribing process

Review of deprescribing processes and development of an evidence-based, patient-centred deprescribing process

Emily Reeve,^{1,2} Sepehr Shakib,² Ivanka Hendrix,³ Michael S. Roberts^{4,5} & Michael D. Wiese¹

¹Sansom Institute, School of Pharmacy and Medical Sciences, University of South Australia, Adelaide, South Australia, Australia, ²Department of Clinical Pharmacology, Royal Adelaide Hospital, Adelaide, South Australia, Australia, ³Pharmacy Department, Repatriation General Hospital, Daw Park, South Australia, Australia, ⁴School of Pharmacy and Medical Sciences, University of South Australia, Adelaide, South Australia, Australia and ⁵Therapeutics Research Centre, School of Medicine, University of Queensland, Brisbane, Queensland, Australia

Correspondence

Ms Emily Reeve BPharm Hons, School of Pharmacy and Medical Sciences, University of South Australia, GPO Box 2471, Adelaide, SA 5001, Australia.
Tel.: +61 2 99264924
Fax: +61 2 99264053
E-mail: emily.reeve@sydney.edu.au

Keywords

deprescribing, deprescribing process, elderly, inappropriate medication use, medication withdrawal, polypharmacy

Received

12 December 2013

Accepted

20 March 2014

Accepted Article Published Online

25 March 2014

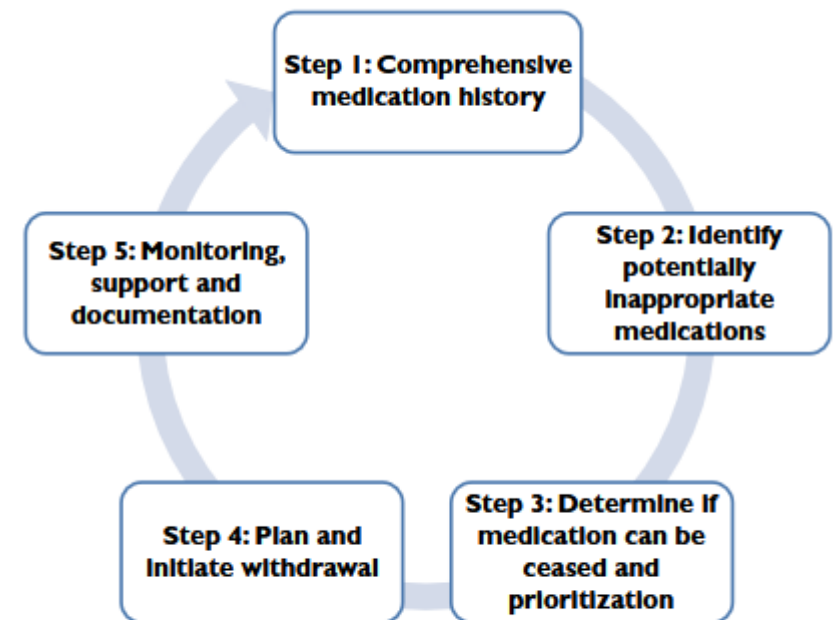



Figure 1

The five-step patient-centred deprescribing process

- Developed from a literature review of deprescribing models and international survey with 263 physicians, pharmacists and nurses from 26 countries
- The proactive deprescribing specification comprises of 17 activities combined into four steps

Open Access Article

An Internationally Derived Process of Healthcare Professionals' Proactive Deprescribing Steps and Constituent Activities

by Sion Scott¹ , Natalie Buac²  and Debi Bhattacharya^{1,*} 

¹ School of Healthcare, University of Leicester, Leicester LE1 7RH, UK

² School of Pharmacy, University of East Anglia, Norwich NR4 7TJ, UK

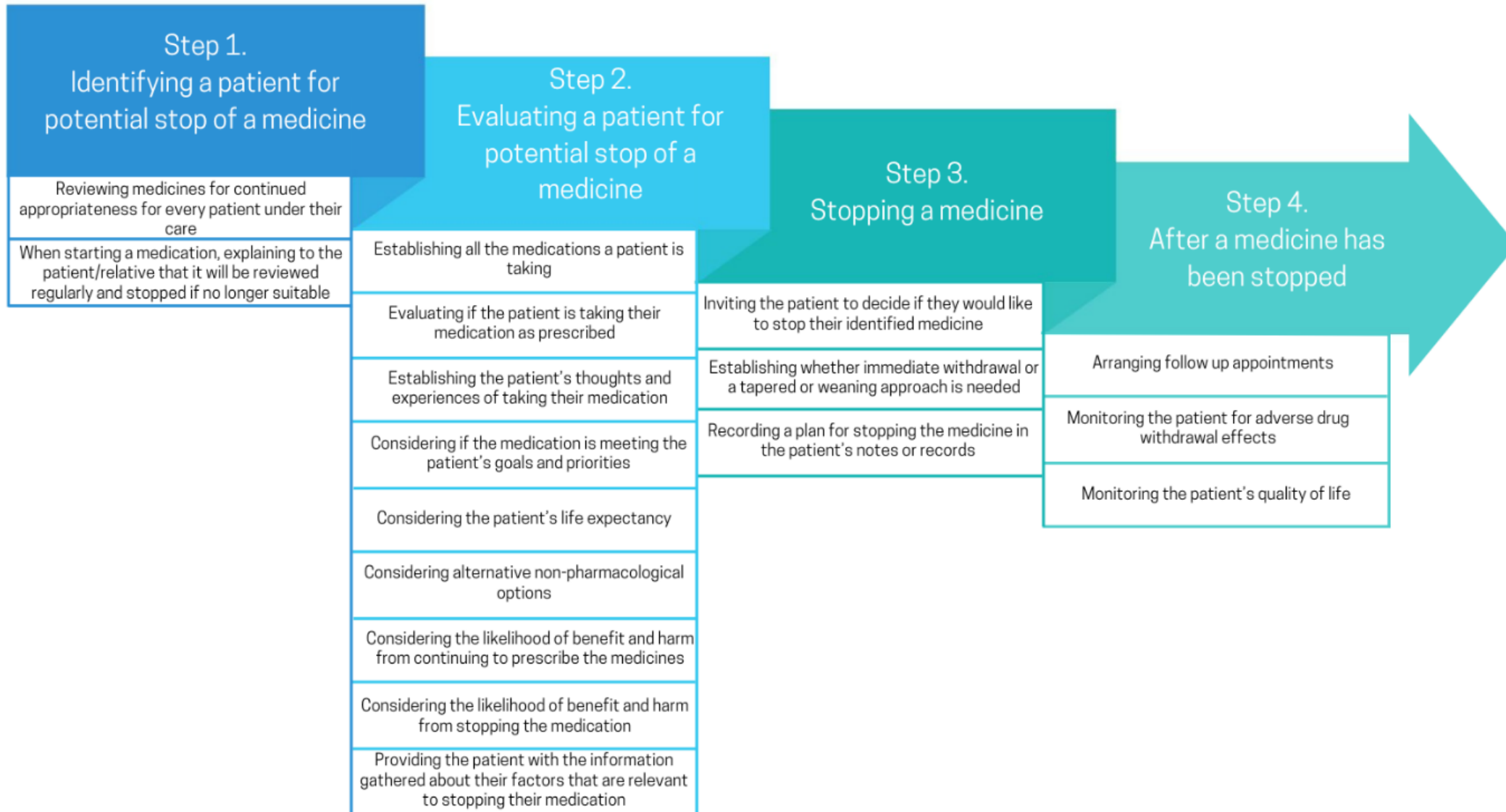
* Author to whom correspondence should be addressed.

Pharmacy 2024, 12(5), 138; <https://doi.org/10.3390/pharmacy12050138>

Submission received: 25 July 2024 / Revised: 4 September 2024 / Accepted: 5 September 2024 /

Published: 9 September 2024

The deprescribing process



The deprescribing process



From the patient perspective, which part of the process is leading to a suboptimal experience?

| | | |
|--|--|--|
| Considering if the medication is meeting the patient's goals and priorities | Recording a plan for stopping the medicine in the patient's notes or records | Monitoring the patient for adverse drug withdrawal effects |
| Considering the patient's life expectancy | | Monitoring the patient's quality of life |
| Considering alternative non-pharmacological options | | |
| Considering the likelihood of benefit and harm from continuing to prescribe the medicines | | |
| Considering the likelihood of benefit and harm from stopping the medication | | |
| Providing the patient with the information gathered about their factors that are relevant to stopping their medication | | |



A Patient Reported Experience Measure (PREM) for deprescribing

- PREMs collect information about how a patient experiences the care [i.e. deprescribing] delivered

A Patient Reported Experience Measure (PREM) for deprescribing

- PREMs collect information about how a patient experiences the care [i.e. deprescribing] delivered
- Content validity: adequacy and accuracy of the measure of a construct (e.g. experience of deprescribing activity delivered by a healthcare professional) is a function of the precision with which the items that form the measure reflect the **content** and **scope** of the construct.

A Patient Reported Experience Measure (PREM) for deprescribing

- PREMs collect information about how a patient experiences the care [i.e. deprescribing] delivered
- Content validity: adequacy and accuracy of the measure of a construct (e.g. experience of deprescribing activity delivered by a healthcare professional) is a function of the precision with which the items that form the measure reflect the **content** and **scope** of the construct.
 - Often assumed as face validity evaluated using e.g. cognitive interviews, pilot testing
 - Do respondents actually interpret the items in the way we intended?
 - May 'assume' item includes relevant content, but not whether it taps into other constructs

A Patient Reported Experience Measure (PREM) for deprescribing

- PREMs collect information about how a patient experiences the care [i.e. deprescribing] delivered
- Content validity: adequacy and accuracy of the measure of a construct (e.g. experience of deprescribing activity delivered by a healthcare professional) is a function of the precision with which the items that form the measure reflect the **content** and **scope** of the construct.
 - Often assumed as face validity evaluated using e.g. cognitive interviews, pilot testing
 - Do respondents actually interpret the items in the way we intended?
 - May 'assume' item includes relevant content, but **not whether it taps into other constructs**

- PREMs [i.e. de
- Content (e.g. ex profes form t
- Often test
- May oth

British Journal of Health Psychology (2014), 19, 240–257
© 2014 The British Psychological Society



The British
Psychological Society

www.wileyonlinelibrary.com

240

Discriminant content validity: A quantitative methodology for assessing content of theory-based measures, with illustrative applications

Marie Johnston^{1*}, Diane Dixon², Jo Hart³, Liz Glidewell⁴,
Carin Schröder⁵ and Beth Pollard¹

¹Institute of Applied Health Sciences, University of Aberdeen, UK

²University of Strathclyde, Glasgow, UK

³Manchester Centre for Health Psychology, Manchester University, Manchester, UK

⁴Leeds Institute of Health Sciences, University of Leeds, UK

⁵Centre of Excellence for Rehabilitation Medicine, Utrecht, The Netherlands

- Core principle: A valid item must encapsulate all relevant parts of its intended construct AND not measure unintended constructs i.e. *discriminant* content validity

- Core principle: A valid item must encapsulate all relevant parts of its intended construct AND not measure unintended constructs i.e. *discriminant* content validity
- Step 1: Identify or generate clear definitions of each construct to be assessed
- Step 2: Generate items
- Step 3: Identify 'judges' (experts in topic and/or PREM target audience)
- Step 4: Test the content validity (single-sample t-tests or nonparametric one-sample test (Wilcoxon))

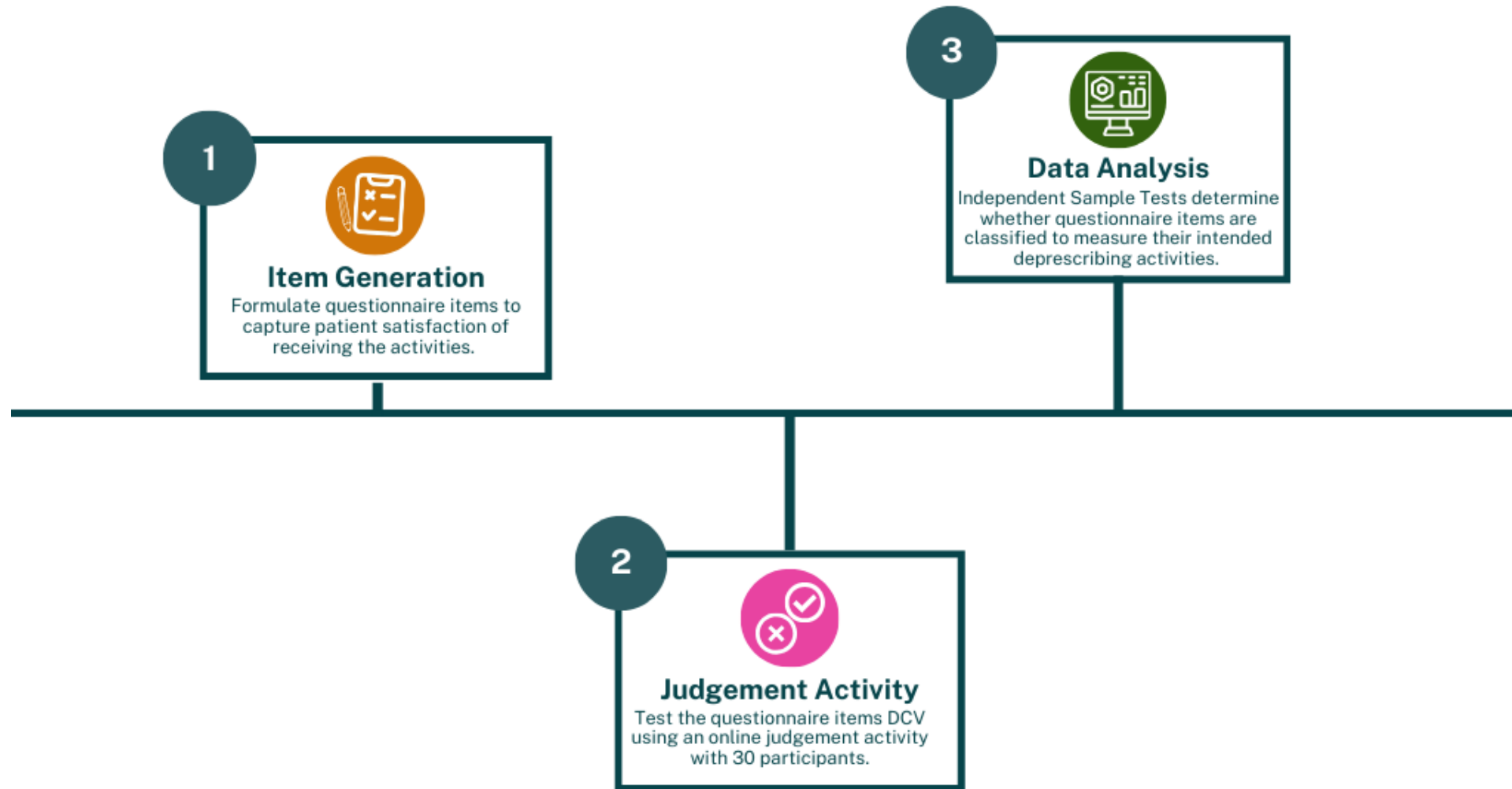
- Core principle: A valid item must encapsulate all relevant parts of its intended construct AND not measure unintended constructs i.e. *discriminant content validity*
- **A significant result indicates that the judges are confident that the item does (positive value) or does not (negative value) assess the construct. Non-significant results may indicate general uncertainty of the judge or disagreement among the judges.**
- Step 3: Identify 'judges' (experts in topic and/or PREM target audience)
- Step 4: Test the content validity (single-sample t-tests or nonparametric one-sample test (Wilcoxon))

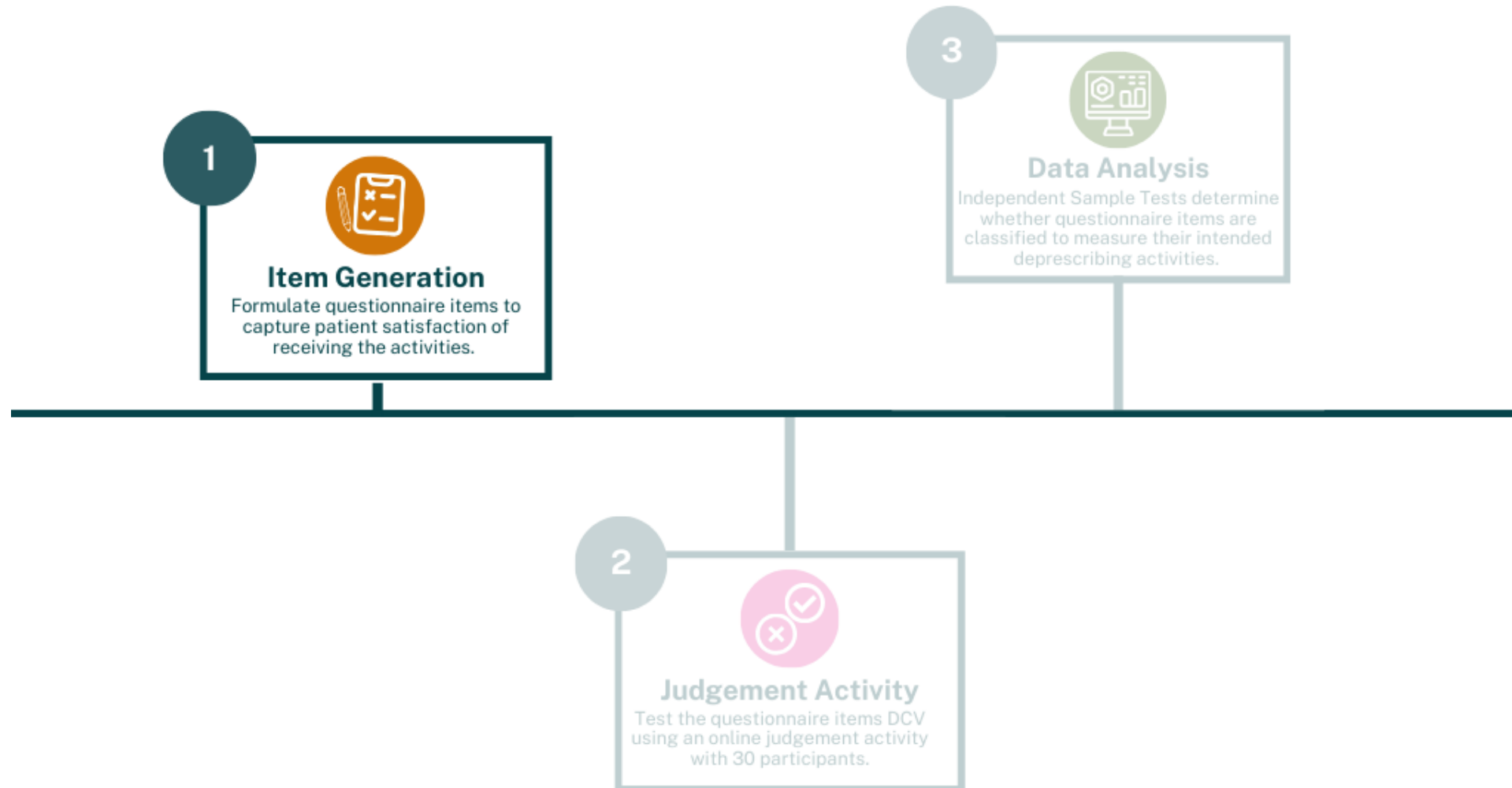
Development and discriminant content validity of the Patient Experience of the Deprescribing process Questionnaire (PED-Q)

Funded by:



The U.S. Deprescribing Research
Network is funded by the
National Institute on Aging,
Grants No. R33AG086944 and
R24AG064025.

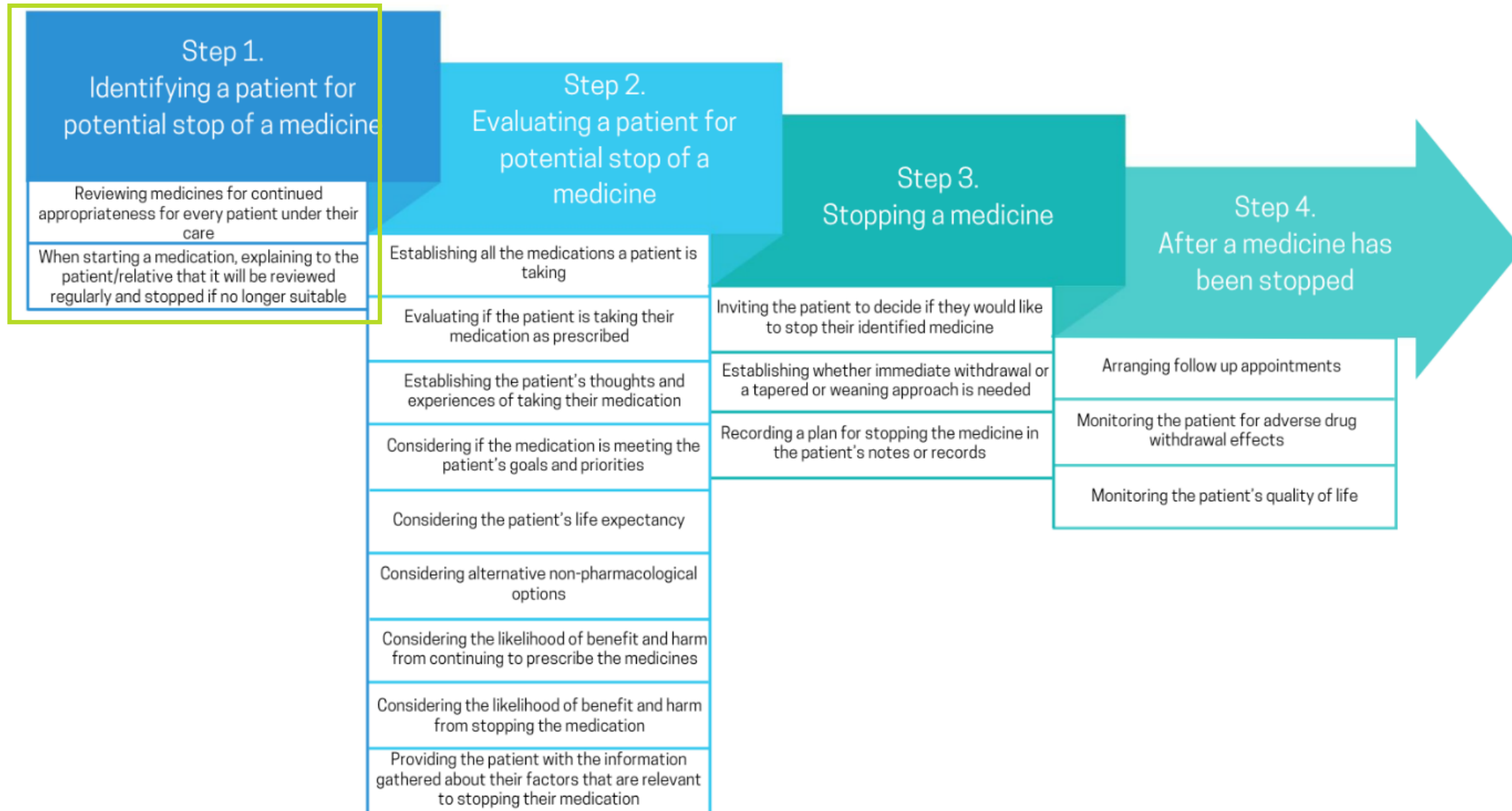




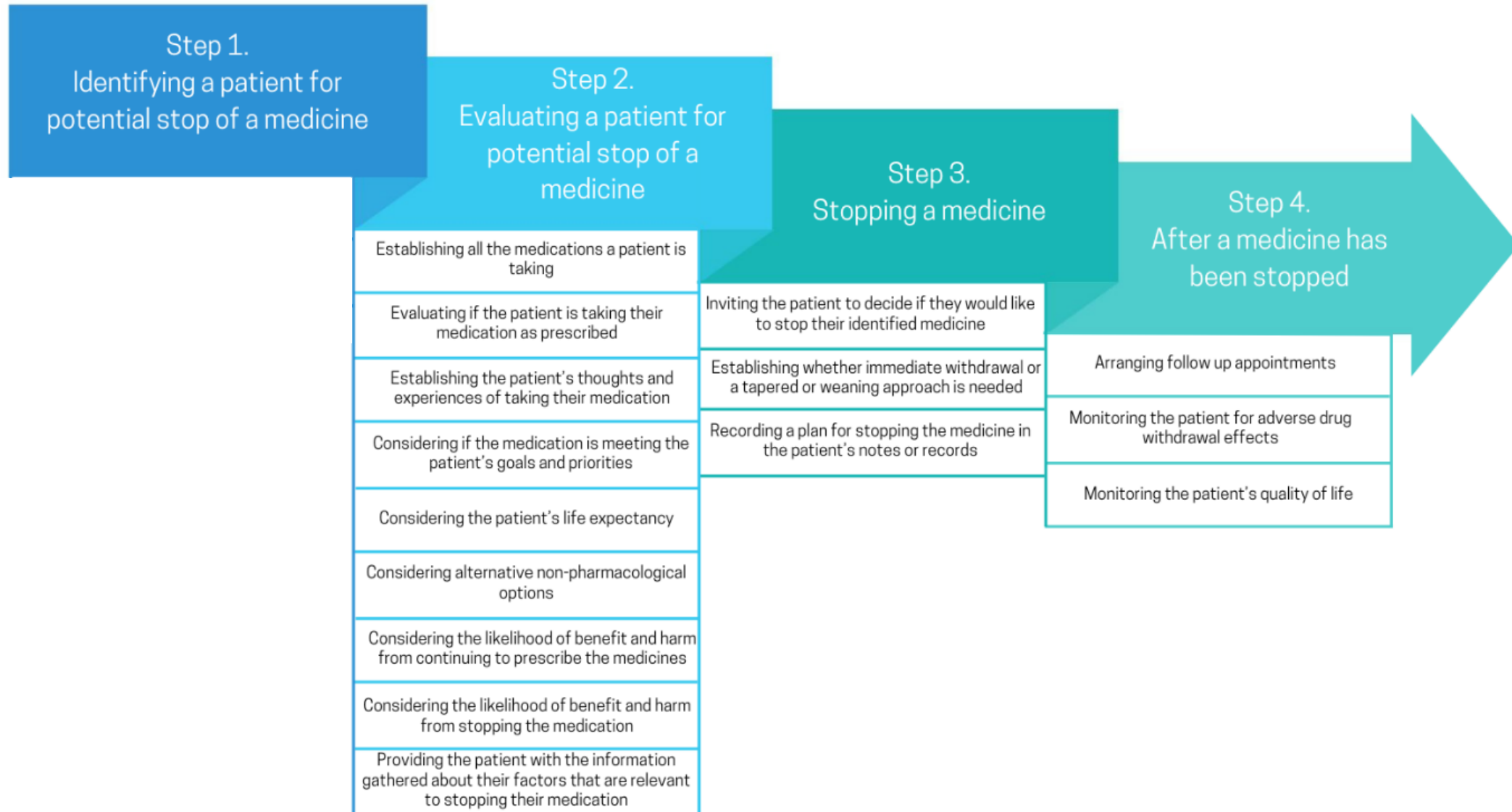
| Deprescribing Step | Deprescribing Activity(ies) | Prototype PED-Q Items |
|---|--|--|
| Step 4: After a medicine has been stopped | | Version 1 (base): How satisfied are you that if there were any problems from stopping your medicine(s), they would be picked up and dealt with appropriately? |
| | Arrange follow-up | |
| | Monitoring the patient for adverse drug withdrawal effects | |

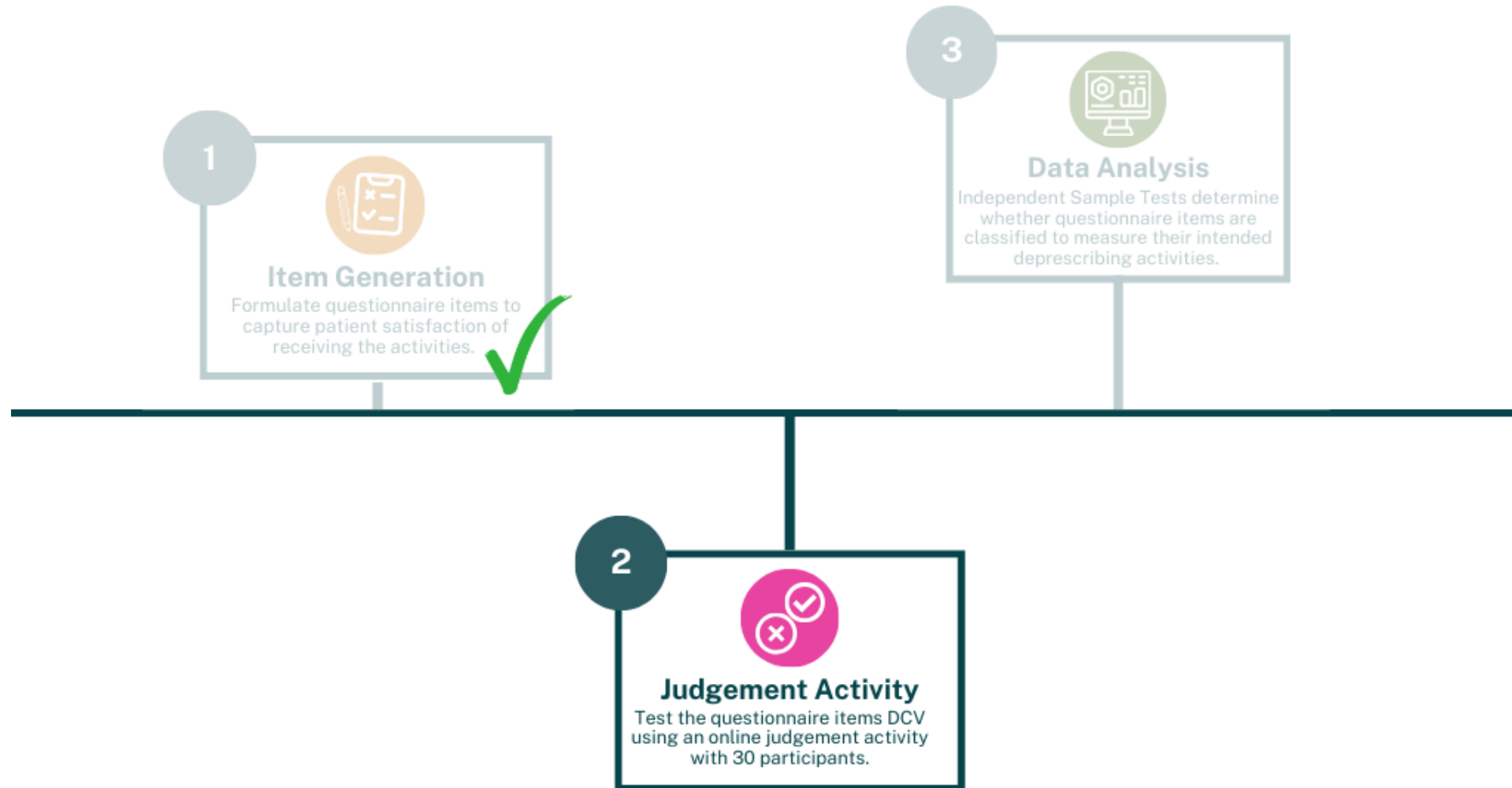
| Deprescribing Step | Deprescribing Activity(ies) | Prototype PED-Q Items |
|---|---|---|
| Step 4: After a medicine has been stopped | Arrange follow-up Monitoring the patient for adverse drug withdrawal effects | <p>Version 1 (base) : How satisfied are you that if there were any problems from stopping your medicine(s), they would be picked up and dealt with appropriately?</p> <p>Version 2: How satisfied are you that the healthcare professional had made arrangements to check whether you got any problems from stopping one or more of your medicines?</p> <p>Version 3: How satisfied are you that you would know what to do if there was a problem from stopping one or more of your medicines?</p> |

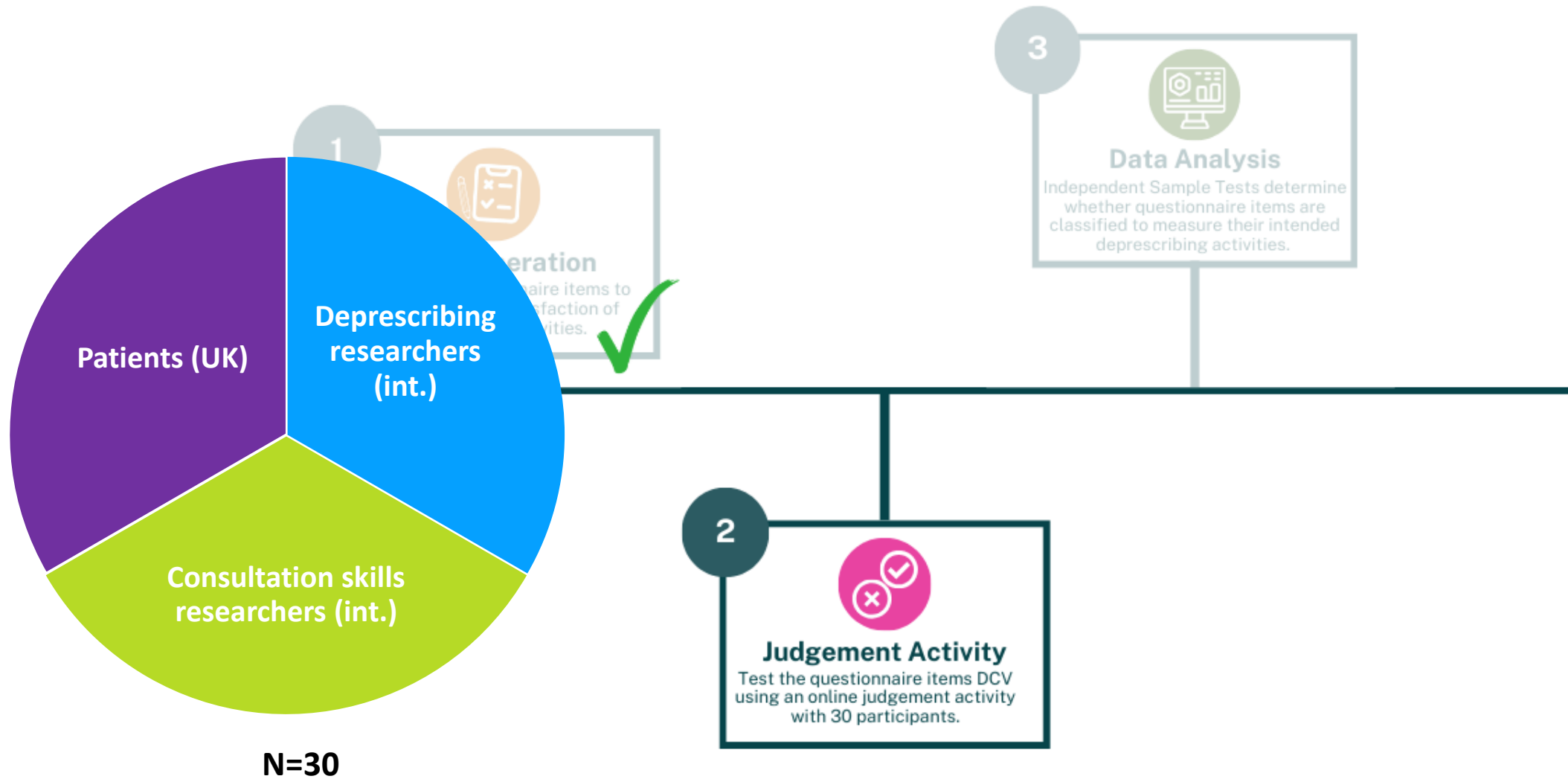
The deprescribing process

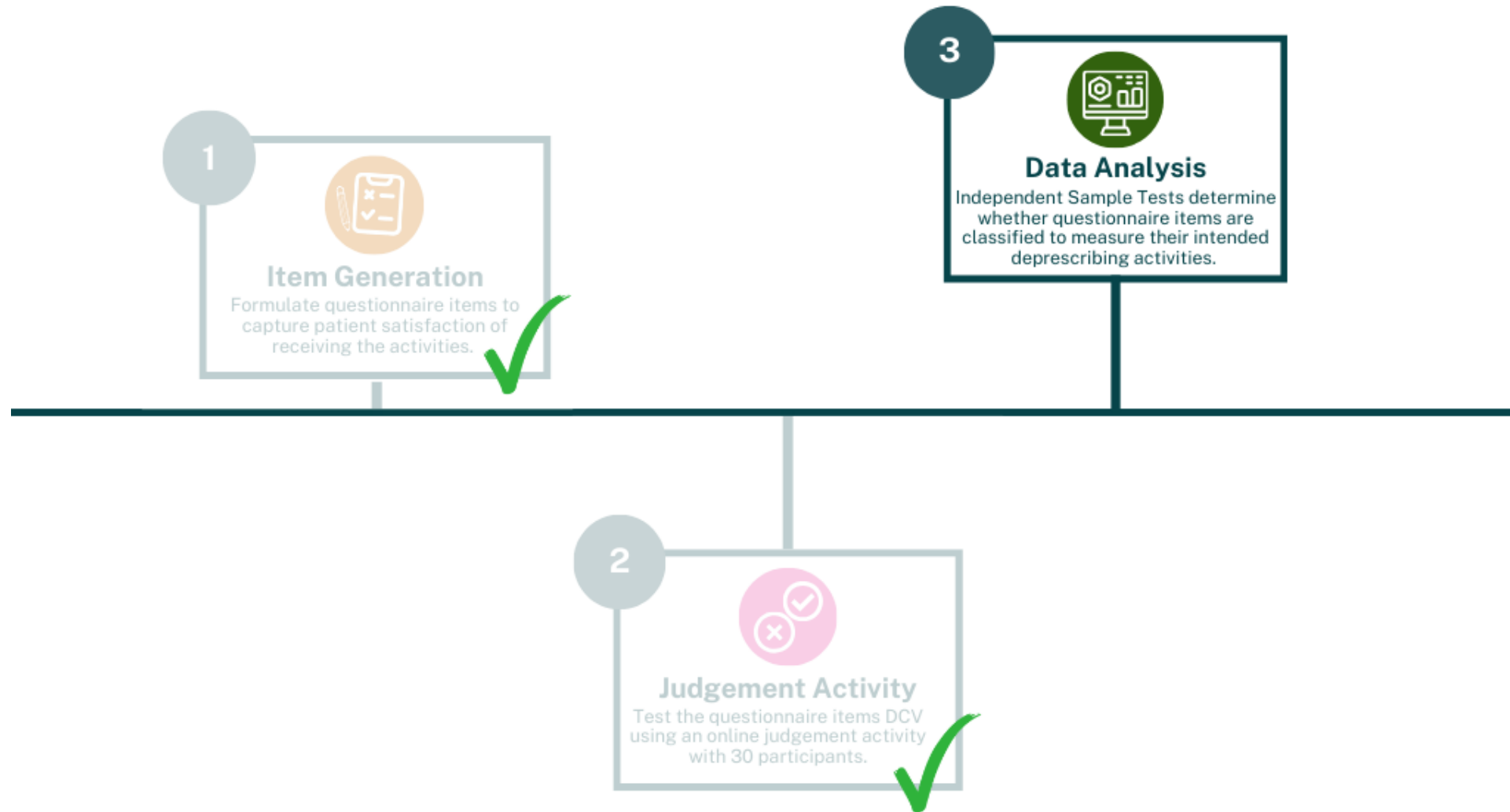


The deprescribing process









1. Code the data
2. Multiply by confidence rating e.g. $1 \times .70$ or $-1 \times .90$ (*weighted judgement*)
3. Test for normality of data
4. Non-parametric one sample test (Wilcoxon)
5. Benjamini-Hochberg correction for multiple tests (False Discovery Rate)

| | Does the questionnaire item measure this activity? | |
|---|--|-----------------------|
| | Yes | No |
| Activity: Establishing all the medications a patient is taking | <input checked="" type="radio"/> | <input type="radio"/> |

'Yes' = 1 (match)

'No' = -1 (no match)

How confident are you that it does or does not measure this activity? (0 = not confident at all, 10 = extremely confident)

| | | | | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| (0 | .10 | .20 | .30 | .40 | .50 | .60 | .70 | .80 | .90 | 1) |

1. Code the data
2. Multiply by confidence rating e.g. $1 \times .70$ or $-1 \times .90$ (*weighted judgement*)
3. Test for normality of data
4. Non-parametric one sample test (Wilcoxon)
5. Benjamini-Hochberg correction for multiple tests (False Discovery Rate)

| | Does the questionnaire item measure this activity? | |
|---|--|-----------------------|
| | Yes | No |
| Activity: Establishing all the medications a patient is taking | <input checked="" type="radio"/> | <input type="radio"/> |

'Yes' = 1 (match)

'No' = -1 (no match)

How confident are you that it does or does not measure this activity? (0 = not confident at all, 10 = extremely confident)

| | | | | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| (0 | .10 | .20 | .30 | .40 | .50 | .60 | .70 | .80 | .90 | 1) |

Results

| Item | Activities it was intended to measure | Activities that it measures | Observed Median | Significance | BH Correction |
|---|---------------------------------------|-----------------------------|-----------------|--------------|-------------------|
| How satisfied are you that the healthcare professional was aware of all the medicines that you were taking? | 1 | 1 | 1.0 | <.001 | 0.000285714285714 |
| | 2 | 2 | 1.0 | <.001 | 0.004285714285714 |

| Activities that it does not measure | Observed Median | Significance | BH Correction |
|-------------------------------------|-----------------|--------------|-------------------|
| 5 | -0.8 | <.001 | 0.009523809523810 |
| 6 | -0.9 | <.001 | |
| 6 | -0.9 | <.001 | 0.002857142857143 |
| 7 | -0.9 | 0.013 | 0.018571428571429 |
| 8 | -0.9 | 0.021 | 0.020761904761905 |
| 9 | -0.9 | 0.014 | 0.022000000000000 |
| 10 | -0.8 | 0.026 | 0.024952380952381 |
| 11 | -0.9 | 0.002 | 0.011333333333333 |
| 12 | -0.9 | 0.003 | 0.013714285714286 |
| 13 | -1.0 | <.001 | 0.006857142857143 |
| 14 | -0.9 | <.001 | 0.008285714285714 |
| 15 | -0.9 | 0.001 | 0.010476190476191 |

Results

| Item | Activities it was intended to measure | Activities that it measures | Observed Median | Significance | BH Correction |
|---|---------------------------------------|-----------------------------|-----------------|--------------|-------------------|
| How satisfied are you that the healthcare professional was aware of all the medicines that you were taking? | 1 | 1 | 1.0 | <.001 | 0.000285714285714 |
| | 2 | 2 | 1.0 | <.001 | 0.004285714285714 |

| Activities that it does not measure | Observed Median | Significance | BH Correction |
|-------------------------------------|-----------------|--------------|-------------------|
| 5 | -0.8 | <.001 | 0.009523809523810 |
| 6 | -0.9 | <.001 | |
| 6 | -0.9 | <.001 | 0.002857142857143 |
| 7 | -0.9 | 0.013 | 0.018571428571429 |
| 8 | -0.9 | 0.021 | 0.020761904761905 |
| 9 | -0.9 | 0.014 | 0.022000000000000 |
| 10 | -0.8 | 0.026 | 0.024952380952381 |
| 11 | -0.9 | 0.002 | 0.011333333333333 |
| 12 | -0.9 | 0.003 | 0.013714285714286 |
| 13 | -1.0 | <.001 | 0.006857142857143 |
| 14 | -0.9 | <.001 | 0.008285714285714 |
| 15 | -0.9 | 0.001 | 0.010476190476191 |

Results

| Item | Activities it was intended to measure | Activities that it measures | Observed Median | Significance | BH Correction |
|---|---------------------------------------|-----------------------------|-----------------|--------------|-------------------|
| How satisfied are you that the healthcare professional was aware of all the medicines that you were taking? | 1 | 1 | 1.0 | <.001 | 0.000285714285714 |
| | 2 | 2 | 1.0 | <.001 | 0.004285714285714 |

| Activities that it does not measure | Observed Median | Significance | BH Correction |
|-------------------------------------|-----------------|--------------|-------------------|
| 5 | -0.8 | <.001 | 0.009523809523810 |
| 6 | -0.9 | <.001 | |
| 6 | -0.9 | <.001 | 0.002857142857143 |
| 7 | -0.9 | 0.013 | 0.018571428571429 |
| 8 | -0.9 | 0.021 | 0.020761904761905 |
| 9 | -0.9 | 0.014 | 0.022000000000000 |
| 10 | -0.8 | 0.026 | 0.024952380952381 |
| 11 | -0.9 | 0.002 | 0.011333333333333 |
| 12 | -0.9 | 0.003 | 0.013714285714286 |
| 13 | -1.0 | <.001 | 0.006857142857143 |
| 14 | -0.9 | <.001 | 0.008285714285714 |
| 15 | -0.9 | 0.001 | 0.010476190476191 |

Results

| Item | Activities it was intended to measure | Activities that it measures | Observed Median | Significance | BH Correction |
|---|---------------------------------------|-----------------------------|-----------------|--------------|-------------------|
| How satisfied are you that the healthcare professional was aware of all the medicines that you were taking? | 1 | 1 | 1.0 | <.001 | 0.000285714285714 |
| | 2 | 2 | 1.0 | <.001 | 0.004285714285714 |

| Activities that it does not measure | Observed Median | Significance | BH Correction |
|-------------------------------------|-----------------|--------------|-------------------|
| 5 | -0.8 | <.001 | 0.009523809523810 |
| 6 | -0.9 | <.001 | |
| 6 | -0.9 | <.001 | 0.002857142857143 |
| 7 | -0.9 | 0.013 | 0.018571428571429 |
| 8 | -0.9 | 0.021 | 0.020761904761905 |
| 9 | -0.9 | 0.014 | 0.022000000000000 |
| 10 | -0.8 | 0.026 | 0.024952380952381 |
| 11 | -0.9 | 0.002 | 0.011333333333333 |
| 12 | -0.9 | 0.003 | 0.013714285714286 |
| 13 | -1.0 | <.001 | 0.006857142857143 |
| 14 | -0.9 | <.001 | 0.008285714285714 |
| 15 | -0.9 | 0.001 | 0.010476190476191 |

Headline results

| Activity | No. of questions that DO measure | No. of questions that DON'T measure |
|--|----------------------------------|-------------------------------------|
| Establishing all the medications a patient is taking | 4 | 9 |
| Evaluating if the patient is taking their medication as prescribed | 5 | 7 |
| Establishing the patient's thoughts and experiences of taking their medication | 10 (+ 2 neutrals) | 3 |
| Considering if the medication is meeting the patient's goals and priorities | 8 (+ 2 neutrals) | 5 |
| Considering the patient's life expectancy | 1* | 18 (+ 2 neutrals) |
| Considering alternative non-pharmacological options | 5 | 26 (+ 2 neutrals) |
| Considering the likelihood of benefit and harm from continuing to prescribe the medicines | 4 | 7 |
| Considering the likelihood of benefit and harm from stopping the medication | 4 | 3 |
| Providing the patient with the information gathered about their factors that are relevant to stopping their medication | 7 | 2 |
| Inviting the patient to decide if they would like to stop their identified medicine | 4 | 8 |
| Establishing whether immediate withdrawal or a tapered or weaning approach is needed | 3 | 12 (+ 2 neutrals) |
| Recording a plan for stopping the medicine in the patient's notes or records | 6 | 17 (+ 2 neutrals) |
| Arranging follow up appointments | 7 | 17 (+ 2 neutrals) |
| Monitoring the patient for adverse drug withdrawal effects | 8 | 21 (+ 2 neutrals) |
| Monitoring the patient's quality of life | 6 | 17 (+ 1 neutral) |

- Seven activities 'exclusively' matched to 14 versions from six intended base items
 - Six best performing selected for PED-Q



- Seven activities 'exclusively' matched to 14 versions from six intended base items
 - Six best performing selected for PED-Q
- Eight remaining activities
 - Seven measured by both intended and unintended versions of base items
 - One measures by unintended version of base item only



- Seven activities ‘exclusively’ matched to 14 versions from six intended base items
 - Six best performing selected for PED-Q
- Eight remaining activities
 - Seven measured by both intended and unintended versions of base items
 - One measures by unintended version of base item only



| Activities | Item |
|--|--|
| <p>Activity 3 Ask the patient/relative about their thoughts and experiences of taking their medicines</p> <p>Activity 4 Establish if the medicine is meeting the patient's goals and priorities'</p> | <p>How satisfied are you that the healthcare professional encouraged you to share any positive or negative aspects of taking each of your medicines?</p> |




| Activities | Item |
|--|------|
| Activity 11 Establishing whether immediate withdrawal or a tapered or weaning approach is needed | |
| Activity 12 Recording a plan for stopping the medicine in the patient's notes or records | |
| Activity 13 Arranging follow up appointments | |
| Activity 14 Monitoring the patient for adverse drug withdrawal effects | |
| Activity 15 Monitoring the patient's quality of life | |

| Activities | Item |
|--|---|
| <p>Activity 11 Establishing whether immediate withdrawal or a tapered or weaning approach is needed</p> | |
| <p>Activity 12 Recording a plan for stopping the medicine in the patient's notes or records</p> | |
| <p>Activity 13 Arranging follow up appointments</p> | <p>How satisfied are you that the healthcare professional made a plan for stopping one or more of your medicines?</p> |
| <p>Activity 14 Monitoring the patient for adverse drug withdrawal effects</p> | |
| <p>Activity 15 Monitoring the patient's quality of life</p> | |

| Activities | Item |
|--|---|
| <p>Activity 11 Establishing whether immediate withdrawal or a tapered or weaning approach is needed</p> | |
| <p>Activity 12 Recording a plan for stopping the medicine in the patient's notes or records</p> | |
| <p>Activity 13 Arranging follow up appointments</p> | <p>How satisfied are you that the healthcare professional made a plan for stopping one or more of your medicines?</p> |
| <p>Activity 14 Monitoring the patient for adverse drug withdrawal effects</p> | |
| <p>Activity 15 Monitoring the patient's quality of life</p> | |

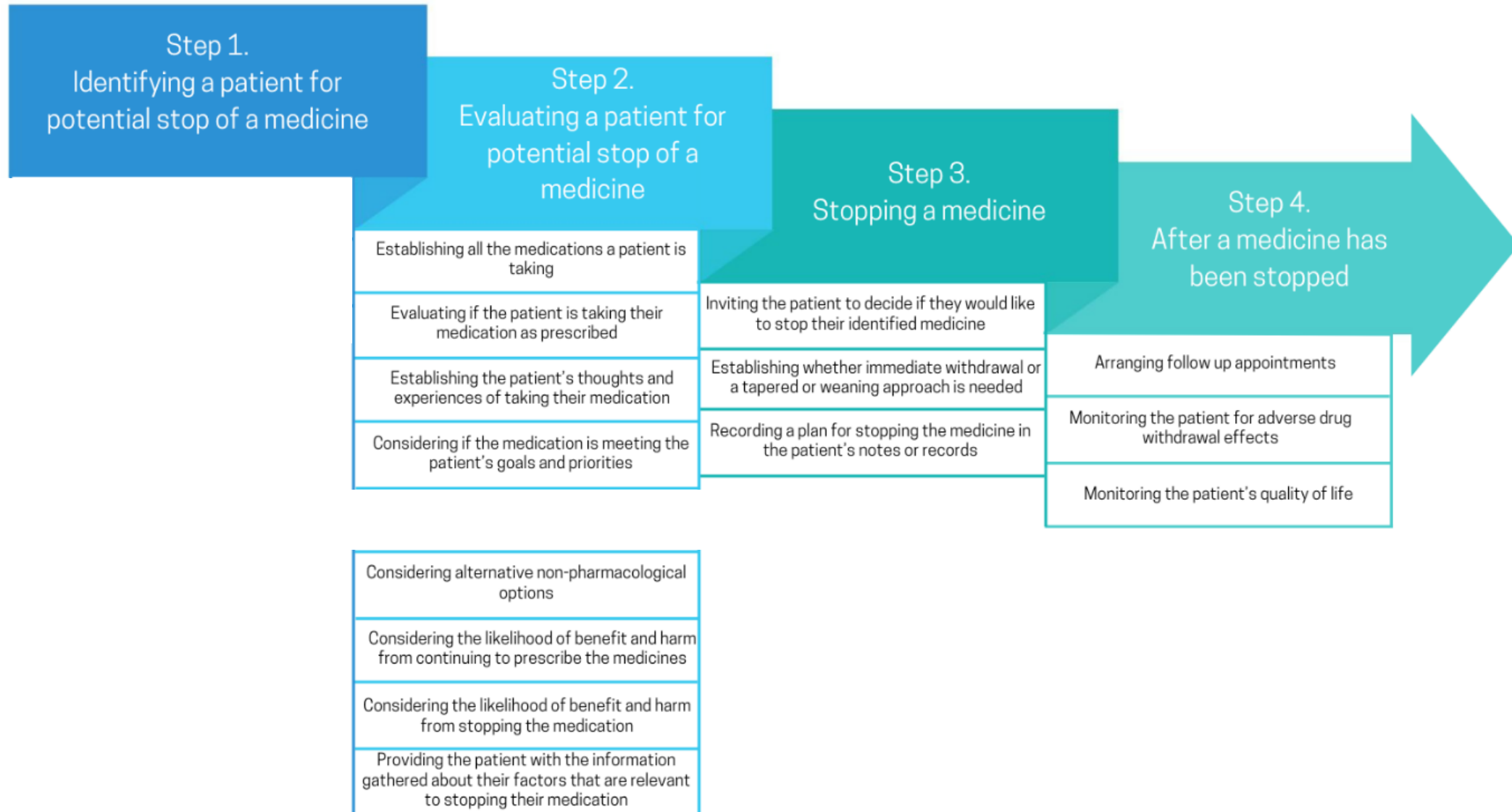
| Activities | Item |
|--|---|
| <p>Activity 11 Establishing whether immediate withdrawal or a tapered or weaning approach is needed</p> | |
| <p>Activity 12 Recording a plan for stopping the medicine in the patient's notes or records</p> | |
| <p>Activity 13 Arranging follow up appointments</p> | <p>How satisfied are you that the healthcare professional made a plan for stopping one or more of your medicines?</p> |
| <p>Activity 14 Monitoring the patient for adverse drug withdrawal effects</p> | |
| <p>Activity 15 Monitoring the patient's quality of life</p> | |

| Activities | Item |
|--|---|
| <p>Activity 11 Establishing whether immediate withdrawal or a tapered or weaning approach is needed</p> | |
| <p>Activity 12 Recording a plan for stopping the medicine in the patient's notes or records</p> | |
| <p>Activity 13 Arranging follow up appointments</p> | <p>How satisfied are you that the healthcare professional made a plan for stopping one or more of your medicines?</p> |
| <p>Activity 14 Monitoring the patient for adverse drug withdrawal effects</p> | |
| <p>Activity 15 Monitoring the patient's quality of life</p> |  |

- Activity 5: Consider the patient's life expectancy
 - Not measured

| | Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
|---|--------------------------|--------------------------|---|--------------------------|--------------------------|
| 1. How satisfied are you that the healthcare professional was aware of all the medicines that you were taking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. How satisfied are you that the healthcare professional encouraged you to share any positive or negative aspects of taking each of your medicines? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. How satisfied are you that non-medicine alternatives to treating your health condition(s) were considered? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. How satisfied are you that the healthcare professional thought about the benefits of continuing to take your medicines with all the possible side effects in mind? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. How satisfied are you that the possible benefits and harm from stopping the medicine(s) were considered? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. How satisfied are you with how the healthcare professional's reasons for stopping your medicine(s) were explained? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. How satisfied are you that you were given enough opportunity to decide whether you wanted to stop your medicine(s)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. How satisfied are you that the healthcare professional made a plan for stopping one or more of your medicines? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The deprescribing process



Next steps



- N=400 patients

Contents lists available at [ScienceDirect](#)

Research in Social and Administrative Pharmacy

journal homepage: www.elsevier.com/locate/rsap

Original Research Paper

The feasibility of implementing a hospital deprescribing behaviour change intervention and undertaking trial processes: A mixed methods evaluation

Sion Scott ^{a,*}, Jacqueline Martin-Kerry ^a, Megan Pritchard ^{b,c}, Bethany Atkins ^a, Allan B. Clark ^b, Kelly Grant ^b, David P. Alldred ^d, Antony Colles ^b, Amber Hammond ^b, Katherine Murphy ^a, Victoria L. Keevil ^{e,f}, Ian Kellar ^g, Martyn Patel ^{b,h}, Erika Sims ^b, Jo Taylor ⁱ, David A. Turner ^b, Miles Witham ^{j,k}, David Wright ^a, Debi Bhattacharya ^a

Check for updates

- N=400 patients
- 26% response rate
 - Low but age median (IQR) 85 years (81, 89), hospitalised, with 27% living in care facility



Contents lists available at [ScienceDirect](#)

Research in Social and Administrative Pharmacy

journal homepage: www.elsevier.com/locate/rsap

Original Research Paper

The feasibility of implementing a hospital deprescribing behaviour change intervention and undertaking trial processes: A mixed methods evaluation

Sion Scott^{a,*}, Jacqueline Martin-Kerry^a, Megan Pritchard^{b,c}, Bethany Atkins^a, Allan B. Clark^b, Kelly Grant^b, David P. Alldred^d, Antony Colles^b, Amber Hammond^b, Katherine Murphy^a, Victoria L. Keevil^{e,f}, Ian Kellar^g, Martyn Patel^{b,h}, Erika Sims^b, Jo Taylorⁱ, David A. Turner^b, Miles Witham^{j,k}, David Wright^a, Debi Bhattacharya^a

- N=400 patients
- 26% response rate
 - Low but age median (IQR) 85 years (81, 89), hospitalised, with 27% living in care facility
- 100% completion rate



Contents lists available at [ScienceDirect](#)

Research in Social and Administrative Pharmacy

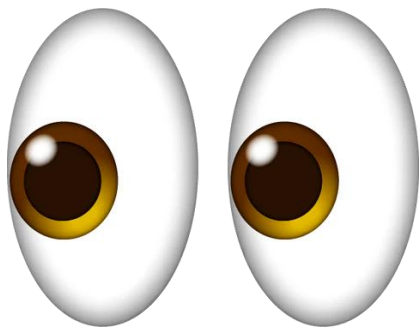
journal homepage: www.elsevier.com/locate/rsap

Original Research Paper

The feasibility of implementing a hospital deprescribing behaviour change intervention and undertaking trial processes: A mixed methods evaluation

Sion Scott^{a,*}, Jacqueline Martin-Kerry^a, Megan Pritchard^{b,c}, Bethany Atkins^a, Allan B. Clark^b, Kelly Grant^b, David P. Alldred^d, Antony Colles^b, Amber Hammond^b, Katherine Murphy^a, Victoria L. Keevil^{e,f}, Ian Kellar^g, Martyn Patel^{b,h}, Erika Sims^b, Jo Taylorⁱ, David A. Turner^b, Miles Witham^{j,k}, David Wright^a, Debi Bhattacharya^a

- N=400 patients
- 26% response rate
 - Low but age median (IQR) 85 years (81, 89), hospitalised, with 27% living in care facility
- 100% completion rate



Contents lists available at [ScienceDirect](#)

 **ELSEVIER**

Research in Social and Administrative Pharmacy

journal homepage: www.elsevier.com/locate/rsap



Original Research Paper

The feasibility of implementing a hospital deprescribing behaviour change intervention and undertaking trial processes: A mixed methods evaluation

Sion Scott^{a,*}, Jacqueline Martin-Kerry^a, Megan Pritchard^{b,c}, Bethany Atkins^a, Allan B. Clark^b, Kelly Grant^b, David P. Alldred^d, Antony Colles^b, Amber Hammond^b, Katherine Murphy^a, Victoria L. Keevil^{e,f}, Ian Kellar^g, Martyn Patel^{b,h}, Erika Sims^b, Jo Taylorⁱ, David A. Turner^b, Miles Witham^{j,k}, David Wright^a, Debi Bhattacharya^a



| | Intervention (n=210)^a | Control (n=108)^a |
|---|---|--|
| Number of admission medications stopped: n (%) | 298/1471 (20.3%) | 55/809 (6.8%) |
| Number of admission medications stopped per participant | | |
| 0 n(%) | 76 (36.2%) | 88 (81.5%) |
| 1 medicine stopped n(%) | 62 (29.5%) | 8 (7.4%) |
| 2 medicines stopped n(%) | 33 (15.7%) | 6 (5.6%) |
| 3 medicines stopped n(%) | 18 (8.6%) | 1 (0.9%) |
| At least 4 medicines stopped n(%) | 21 (10.0%) | 5 (4.6%) |
| Number of participants with at least one admission medication stopped: n (%) | 134 (63.8%) | 20 (18.5%) |

| | Intervention (n=210)^a | Control (n=108)^a |
|---|---|--|
| Number of admission medications stopped: n (%) | 298/1471 (20.3%) | 55/809 (6.8%) |
| Number of admission medications stopped per participant | | |
| 0 n(%) | 76 (36.2%) | 88 (81.5%) |
| 1 medicine stopped n(%) | 62 (29.5%) | 8 (7.4%) |
| 2 medicines stopped n(%) | 33 (15.7%) | 6 (5.6%) |
| 3 medicines stopped n(%) | 18 (8.6%) | 1 (0.9%) |
| At least 4 medicines stopped n(%) | 21 (10.0%) | 5 (4.6%) |
| Number of participants with at least one admission medication stopped: n (%) | 134 (63.8%) | 20 (18.5%) |

- February 2024 – September 2026
- Stepped-wedge trial of a behavioural science underpinned deprescribing intervention over 29 months
- 24 hospitals
- 150 geriatricians and pharmacists
- 42,000 patients
- Primary outcome measure: 90-day hospital readmission (powered for a 3%↓)



ISRCTN registry

Search Advanced Search

[View all studies](#) [Why register?](#) [Register your study](#) [Update your record](#) [Report your results](#) [Get help](#)

ISRCTN13248281 <https://doi.org/10.1186/ISRCTN13248281>

A study evaluating an intervention for doctors and pharmacists working in older people's medicine wards in hospitals in England, to review and stop medicines no longer needed or where the risk of harm outweighs the benefit



FUNDED BY

NIHR | National Institute for Health and Care Research

- February 2024 – September 2026
- Stepped-wedge trial of a behavioural science underpinned deprescribing intervention over 29 months
- 24 hospitals
- 150 geriatricians and pharmacists
- 42,000 patients
- Primary outcome measure: 90-day hospital readmission (powered for a 3%↓)



ISRCTN registry

Search Advanced Search

[View all studies](#) [Why register?](#) [Register your study](#) [Update your record](#) [Report your results](#) [Get help](#)

ISRCTN13248281 <https://doi.org/10.1186/ISRCTN13248281>

A study evaluating an intervention for doctors and pharmacists working in older people's medicine wards in hospitals in England, to review and stop medicines no longer needed or where the risk of harm outweighs the benefit



FUNDED BY

NIHR | National Institute for Health and Care Research

Thank you

sion.scott@uea.ac.uk

Request a copy of the Patient
Evaluation of the Deprescribing
process Questionnaire (PED-Q)

