



Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

Safer Care
Bundle Guide

The Scottish Patient Safety Programme (SPSP) is a unique national initiative that aims to improve the safety and reliability of health and social care and reduce harm, whenever care is delivered.

As part of Healthcare Improvement Scotland's ihub, SPSP is a coordinated campaign of activity to increase awareness of and support the provision of safe, high quality care, whatever the setting.

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Introduction

This guide explains how to implement the NSAIDs Safer Care Bundle in your pharmacy. This booklet and the accompanying resources have been developed to help you improve the clinical care of patients who take NSAIDs.

Why NSAIDs?

NSAIDs were chosen because they are associated with more emergency hospital admissions due to adverse drug reactions than any other class of medicine.

The aim of this quality improvement work is to improve the safety of NSAIDs by ensuring patients have better information about how to take NSAIDs safely and to support pharmacists to improve the clinical care of patients who take NSAIDs.

Anticipated outcomes are:

- reduced number of gastrointestinal events associated with NSAIDs, and
- reduced number of acute kidney injuries associated with NSAIDs.



NSAIDs care bundle

A care bundle is a structured way of improving processes of care to deliver enhanced patient safety and clinical outcomes. In relation to care bundles, this means ensuring that patients receive optimum care at every contact. The NSAIDs care bundle is made up of two parts:

- NSAIDs Communication Care Bundle – this bundle aims to help your pharmacy team consistently deliver the key safety messages and improve the safety of NSAIDs by ensuring patients have better information about how to take NSAIDs safely.

In 2018, an NSAIDs Communication Care Bundle Toolkit was provided to all community pharmacies in Scotland. Online versions of all toolkit resources can be found here: ihub.scot/pharmacy-pack

- NSAIDs Safer Care Bundle – the development of this bundle aims to build on the quality improvement work from the NSAIDs Communication Care Bundle by improving the clinical care of patients who take NSAIDs in addition to other medication. This bundle asks pharmacists to consider three key safety questions in relation to the following three elements:
 - needs assessment
 - high risk patients, and
 - the ‘triple whammy’ combination.

Please refer to your NSAIDs Communication Care Bundle Guide for more information on care bundles or visit our Pharmacy in Primary Care webpage: ihub.scot/pharmacy-pack



Safer Care Bundle resources

- NSAIDs Safer Care Bundle Guide
- Resources for data collection:
 - data collection sheet
 - run chart 1 sheet (measure 1)
 - run chart 2 sheet (measure 2)
 - run chart 3 sheet (measure 3)
 - run chart 4 sheet (compliance with all three measures)
- A4 poster for display in your pharmacy



Please put these resources in your NSAIDs toolkit box

What else do you need?

In addition to these resources, the vital keys to success with the NSAIDs Safer Care Bundle are:

- a willingness to improve
- transparency in data collection, and
- engagement.

If you and your team would like more support please approach your local Quality Improvement contact or contact the Primary Care Portfolio team: hcis.PCPTeam@nhs.net



What is the NSAIDs Safer Care Bundle?

The NSAIDs Safer Care Bundle comprises three elements designed to support pharmacists in their clinical decision-making and, as with all care bundles, should be viewed as a tool to help deliver improved care when applied as a complete bundle.

Key safety questions

Pharmacists are asked to consider the following safety questions in relation to the three elements.

Elements	Key safety questions
Needs assessment	Has the patient's use and/or need of their NSAID been assessed? Yes/No
High risk patients	If the patient is in a high risk group has action been taken to reduce this risk? Yes/No/Not HR
The triple whammy combination	If the triple whammy combination has been prescribed has this been highlighted to the prescriber? Yes/No/Not TW

Needs assessment

It may be reasonable to assume that the prescriber or the GP practice pharmacist has assessed the need and suitability of an NSAID for each patient, but this does not remove the pharmacist's responsibility to make their own judgement when carrying out a clinical check. Whilst the first reaction might be to ensure that gastroprotection is being delivered along with long-term NSAID treatment, it is necessary to step back and ask whether or not the NSAID is actually the best treatment for each patient.

Due to the nature of the different relationships between patient and healthcare professionals, the pharmacist may often have a better opportunity to discuss the prescription with the patient than GP practice staff. Each safety question should trigger clinical questions as detailed in Table 1 (see page 8) and act as a prompt to take appropriate action when required.

High risk patients

Where a patient is deemed to be within a high risk category, gastroprotection should be considered. Discussion with the patient is key in these cases, as the patient medication record may not provide the pharmacist with all the relevant information. Again, the importance of assessing the clinical need against risk factors will provide an insight into any actions required by the pharmacist. It would not be unusual to see an NSAID prescribed for a patient with several high risk indicators. As the bundle guidance in Table 1 indicates, the addition of a gastroprotective drug, such as a proton pump inhibitor, may be inappropriate and the NSAID prescribing may need to be challenged.

The triple whammy combination

As highlighted earlier, the bundle is not a decision-making tool so a patient being prescribed an NSAID along with an angiotensin converting enzyme (ACE) inhibitor, or angiotensin II receptor blocker (ARB) and a diuretic needs to be clinically assessed by the appropriate healthcare professional. Whilst the supporting evidence highlights the increased risk of suffering an acute kidney injury to a patient prescribed this triple whammy, the bundle does not provide the pharmacist with a single outcome but advises a person-centred approach based on all the information available.

Table 1: Putting the Safer Care Bundle into practice

Safety Question	Why?	Prompts and further guidance
<p>Has the patient's use and/or need of their NSAID been assessed?</p> <p>Yes/No</p>	<p>Taking NSAIDs with or after food reduces risk of side effects.</p>	<ul style="list-style-type: none"> • Is the patient taking the NSAID as prescribed? • Does the patient feel they still require an NSAID? • Can the NSAID be taken intermittently? • If prescribed 'when required', does the patient know how to take it? • Action via GP communication tool if, for example, patient not compliant, or NSAID not required, or dose/frequency/quantity can be reduced.

Safety Question	Why?	Prompts and further guidance
<p>If the patient is in a high risk group has action been taken to reduce this risk?</p> <p>Yes/No/Not HR</p>	<p>People at increased risk of gastrointestinal adverse events from NSAIDs:</p> <ul style="list-style-type: none"> • age over 75 years • concomitant use of medicines known to increase risk of gastrointestinal bleeds such as anticoagulants, aspirin, corticosteroids, selective serotonin reuptake inhibitors (SSRIs), venlafaxine, duloxetine • history of gastrointestinal ulcer/bleeding • excessive alcohol/smoking^{1,2}. <p>Proton pump inhibitors (PPIs) are linked with increased risk of <i>Clostridium difficile</i> infection and their use should be limited to patients at high risk of gastrointestinal adverse events.</p> <p>Consider other risks for <i>Clostridium difficile</i> infection, such as frequent use of antibiotics, before prescribing PPIs.</p>	<ul style="list-style-type: none"> • Is the patient in one of the high risk groups listed (left) for whom gastroprotection would be appropriate? • If gastroprotection is not prescribed, consider what the best option is, for example stopping the NSAID or starting gastroprotection. • Remember that gastroprotection is not without risks. It should be limited to these high risk groups and may not be appropriate for some patients in these groups.

1. National Institute for Health and Care Excellence (NICE) British National Formulary, available from: <https://bnf.nice.org.uk/>

2. National Institute for Health and Care Excellence (NICE) Clinical Knowledge Summaries (CKS), available from <https://cks.nice.org.uk>

Safety Question	Why?	Prompts and further guidance
If the triple whammy combination has been prescribed has this been highlighted to the prescriber?	Concomitant use of the triple whammy combination of NSAID, ACE inhibitor, or ARB and diuretic should be avoided ^{3,4,5} .	<ul style="list-style-type: none"> Check that the prescriber has been contacted, for example is there a copy of a communication tool?
Yes/No/Not TW		

Previous experience using the NSAIDs Communication Care Bundle will have introduced the concept of care bundles and how to use them. However, it should be stressed that whilst the NSAIDs Safer Care Bundle supports decision-making, it is not a clinical decision-making tool. Pharmacists must take responsibility for their own decisions based on their knowledge of the wider clinical picture, for example previous discussions with the patient and/or prescriber.

3. Polypharmacy Guidance, Realistic Prescribing 3rd Edition, 2018. Scottish Government, available from: <http://www.therapeutics.scot.nhs.uk/wp-content/uploads/2018/04/Polypharmacy-Guidance-2018.pdf>

4. 'Sick day' guidance in patients at risk of Acute Kidney Injury: a Position Statement from the Think Kidneys Board, available from: <https://www.thinkkidneys.nhs.uk/aki/wp-content/uploads/sites/2/2018/01/Think-Kidneys-Sick-Day-Guidance-2018.pdf>

5. British Medical Journal, BMJ 2013;346:e8525, available from: <https://www.bmj.com/content/346/bmj.e8525>



How do you check the bundle is working?

The only way to find out if the NSAIDs Safer Care Bundle is being applied consistently is to collect some data. The best way to do this is by small frequent samples; it would be impossible to audit every patient in a busy pharmacy but checking a small sample is manageable.

Aim for 10 patients each week – we suggest best way is for the pharmacist to fill in the data collection sheet at the point of clinical assessment.

Data Collection Sheet

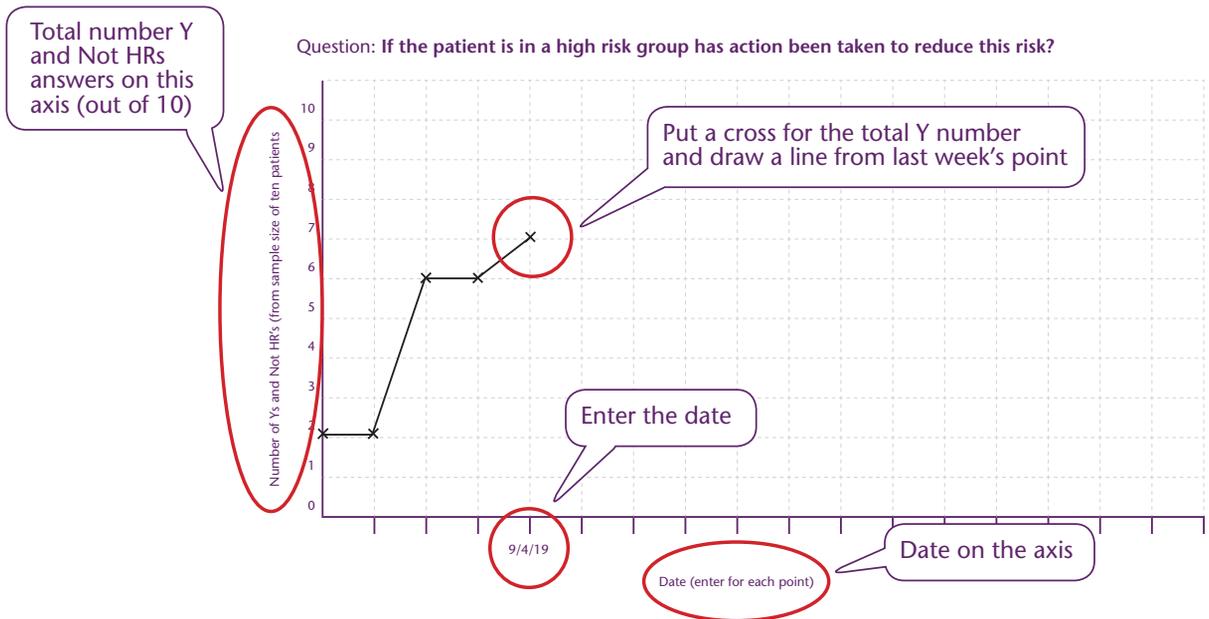
Comments	Patient	Question 1 Has the patient's use and/or need of their NSAID been assessed?		Question 2 If patient is in a high risk group, has action been taken to reduce this risk?			Question 3 If the triple whammy combination been prescribed has this been highlighted to the prescriber?			Has full compliance with the bundle been achieved?	
		Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
	1	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
	2	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
Third party collecting	3	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
PPI already prescribed	4	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
	5	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
Phoned GP	6	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
Lunchtime – very busy	7	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
78 yr old – no PMR	8	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
SBAR sent to practice pharmacist	9	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
	10	Y	N	Y	N	Not HR	Y	N	Not TW	Y	N
Total number of Ys, 'Not HR' or 'Not TW' if applicable		8	—	2	—	7	2	—	8	7	—
Overall totals		8		9			10			7	
		Plot the total number of Ys on Chart 1 along with the date		Plot the total number of Ys and Not HRs on Chart 2 along with the date			Plot the total number of Ys and Not TWs on Chart 3 along with the date			Plot the total number of Ys on Chart 4 along with the date	

At the end of each week, you should have four overall totals numbers on the data collection sheet:

- the number of patients out of 10 who have been annotated as Yes against Question 1
- the total number of patients annotated as Yes or Not HR against Question 2
- the total number of patients annotated as Yes or Not TW against Question 3
- the number of patients out of 10 where you have achieved full compliance with the bundle (compliance is reached for any question if the answer is Yes or Not HR/Not TW as applicable)

The next step is to transfer the overall totals to the charts, so that you can see how you are improving over time.

There is one chart for each of the three questions and a fourth chart to measure whether all three questions were completed for each patient (compliance with the bundle).



What do you do then?

If your data is variable that's okay, as it gives you something to work to improve and areas to focus on. We would hope to see this improve over time as you use the prompts within the toolkit and become more familiar with the processes.

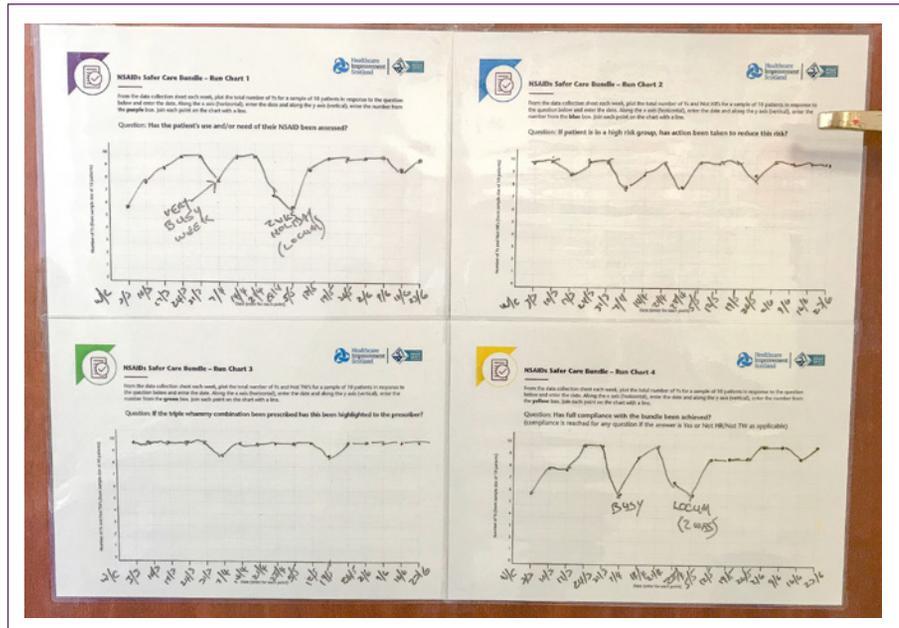
If the data demonstrates good compliance that's great, keep going.

If not, then think about how you could improve.

For example:

- What barriers are stopping you assessing against the safety questions?
- What changes in process could be made to make it easier to complete the bundle?

Then make your improvement and see if you can demonstrate a change on your chart.



Keep collecting data until you can demonstrate that you are consistently applying the bundle (12 weeks of data at above nine out of 10 [90%]). We recommend you re-run the data collection at a future date to check if the bundle has become embedded or if compliance has dropped.

Make sure all pharmacists can see the run charts and understand them – they could perhaps be discussed at team meetings or huddles. You may wish to share your data and key learning with your whole team as part of the wider quality improvement activity on NSAIDs in your pharmacy.

REMEMBER: The run charts will help you identify which areas you need to improve and then demonstrate improvements made. Our guide on how to use run charts for improvement is available to download here:

www.healthcareimprovementscotland.org/improvement.aspx

Has this toolkit been tested?

Yes, this toolkit was tested and agreed with pilot groups and validated by the University of Strathclyde.



Are there any other supporting materials?

For more information about quality improvement and this toolkit visit our Pharmacy in Primary Care webpage: ihub.scot/pharmacy-pack

The information includes the following:

- a recording of the NSAIDs Safer Care Bundle webinar presented by Mark Easton, National Clinical Lead Pharmacist, Primary Care Portfolio, Healthcare Improvement Scotland on 21 March 2019 and hosted by NHS Education for Scotland (please note this resource is only available to pharmacists and you will need to log-in to your TURAS account or create one if you are not already registered)
- online versions of all toolkit resources for the Communication Care and Safer Care bundles
- frequently asked questions
- a list of professional references
- Excel versions of the run charts should you wish to record your data digitally, and
- a quick reference guide on triple whammy combinations.

If you have any queries about the toolkit, please email the Primary Care Portfolio team: hcis.PCPTeam@nhs.net

You can read and download this document from our website.
We are happy to consider requests for other languages or formats.
Please contact our Equality and Diversity Advisor on **0141 225 6999**
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