



User Guide

How to Use ExpertCare from within the Clinical System

Contents

1. Introduction.....	3
1.1 Updated functionality added for V3 of ExpertCare.....	3
2. Using ExpertCare from within the Clinical System.....	4
3. Navigating ExpertCare – Tree View.....	8
4. Navigating ExpertCare – Clinical Details Screen.....	14
4.1 What to do when an incorrect or old code has pulled through from the clinical record.....	19
4.2 The Unsuitable Drug Class Table.....	22
5. Understanding the ExpertCare Treatment Plan.....	24
5.1 How to use the “Action” drop-down menu.....	31
5.2 How to use the “NICE Recommendations” to replace a drug.....	33
5.3 How to add another drug.....	38
5.4 What to do when a drug is not recommended.....	39
5.5 What to do when a patient is on a combination medication.....	42
5.6 What to do when a patient is on more than one strength of the same drug.....	43
5.7 A patient using two different drugs from the same class.....	44
5.8 How to reinstate a medication that has been stopped.....	45
5.9 Ending your consultation and using the ExpertCare modal view.....	47
6. My patient’s blood pressure is controlled, can I still use ExpertCare?.....	55
7. ExpertCare “Help” Pop-ups.....	56
8. Support.....	57
9. Training.....	57

1. Introduction

DXS ExpertCare is an expert system which provides prescribing advice with the dual objectives of controlling the patient's blood pressure to an appropriate target whilst also achieving conformance with treatments recommended by NICE for the management of relevant comorbidities.

ExpertCare takes the following pathway comorbidities into account when making a recommendation:

- Diabetes
- Proteinuria (ACR > 30)
- Myocardial Infarction
- Angina
- Atrial Fibrillation
- Heart Failure

ExpertCare also takes other previously coded factors which can influence treatment decisions, such as age, ethnicity, certain non-pathway comorbidities, and adverse drug reactions, into account.

1.1 Updated functionality added for V3 of ExpertCare

- Target blood pressure is considered and adjusted according to the patient's age, comorbidity, and how the blood pressure was measured (clinic or home readings) in line with NG136.
- The latest eGFR and potassium readings for the patient are displayed in the top banner, and an hourglass icon will indicate to the user when the readings are older than 12 months.
- The floating toolbar will indicate if the patient needs a priority hypertension review as per the risk stratification for hypertension by UCL.

2. Using ExpertCare from within the Clinical System

- Open a hypertensive patient's clinical record in the clinical system (EMIS Web/SystmOne + Aios).

EMIS Web Health Care System - Aios Test Practice - 28826

Summary Consultations Medication Problems Investigations Care History Diary Documents Referrals Care Plans

Add Add/Edit Export Sharing Add/Edit Summary Cardiac View Child Health Diabetic View Print Print CR Config Information Leaflets Search Manage fit notes Fit note

SCR - 2 GP2GP - 25 (25)

New priority Workflow Items received - GP2GP

Active PIPE - AIOSDEMO, Polly (Ms) Born 01-Jan-1971 (53y) Gender Female NHS No. 311 995 9936 Usual GP TEST, DXS (Dr) OS PROXY

Record Sharing

There are no other organisations contributing to the Shared Record.

Data entered by this organisation

Implied record sharing consent operational for this patient

Summary Care Record

No consent preference set - Implied consent for medication, allergies, and adverse reactions only

Problems (6) - No Shared Data Available

Active Problems	Onset Date
Adverse reaction to sulphonamides	12-Aug-2022
Type 2 diabetes mellitus	08-Mar-2022
Acute ST segment elevation myocardial infarction	14-Dec-2021
Essential hypertension	14-Dec-2021
Chronic kidney disease stage 3	14-Aug-2020

Medication (5) - No Shared Data Available

Acute

Mefenamic acid

Repeat

Amlodipine • Bisoprolol Fumarate • Indapamide • Metformin Hydrochloride

Allergies (1) - No Shared Data Available

Adverse reaction to sulphonamides

Diary (1) - No Shared Data Available

Overdue Tasks

GPLinks New Registration 30-Jun-20

Recent Activity (4) - No Shared Data Available

My Last Contact

CLINICAL, Axon (Dr) 04-Oct-2023

Last 4 Contacts

CLINICAL, Axon (Dr)	04-Oct-2023
CLINICAL, Axon (Dr)	15-Sep-2023
CLINICAL, Axon (Dr)	12-Sep-2023
CLINICAL, Axon (Dr)	15-Aug-2023

[More >>>](#)

Health Status (1) - No Shared Data Available

O/E - blood pressure reading 147/93 mmHg 04-Oct-2023

NHS Clinical Practitioner | CLINICAL, Axon (Dr) | Organisation: Aios Test Practice | Location: Master Practice

- It is important that the following details are recorded within the patient's record to ensure the correct and optimal functioning of ExpertCare:
 - Patient's **DOB/age**
 - Patient's **ethnicity**
 - A **hypertension diagnosis** code i.e., essential hypertension
 - A recent **blood pressure measurement**
- The ExpertCare symbol on the floating toolbar will indicate if the patient needs a priority review, according to a traffic light system derived from the UCL Hypertension Risk Stratification tool using the last recorded blood pressure in the patient record.
- Hover over the circle icon on the ExpertCare symbol to see the review priority for the patient.

The screenshot displays the EMIS Web Health Care System interface for a patient. The patient's details are shown in a blue header bar: Born 01-Jan-1971 (53y), Gender Female, NHS No. 311 995 9936, Usual GP TEST, DXS (Dr). The interface includes sections for Documents, Referrals, and Care Plans. A floating toolbar is visible on the right side, containing a red circle icon with a white 'P2' symbol, indicating a priority review. A tooltip is shown over this icon, displaying the text 'Priority review' and a date '04-Oct-2022'. The main content area shows a 'Diary (1) - No Shared Data Available' section with an 'Overdue Tasks' list containing 'GPLinks New Registration'. Below this is a 'Recent Activity (4) - No Shared Data Available' section with a table of contacts.

Onset Date	My Last Contact
12-Aug-2022	
08-Mar-2022	
14-Dec-2021	CLINICAL, Axon (Dr)
14-Dec-2021	

- If the patient does not have a recent blood pressure value recorded, please record and save one during the consultation using the O/E – systolic BP and O/E – diastolic BP Read/SNOMED codes.
- This can be done by using the clinical system's Blood Pressure Template Entry.

The screenshot displays the DXS ExpertCare software interface. At the top, there is a navigation bar with tabs for Summary, Consultations, Medication, Problems, Investigations, Care History, Diary, Documents, Referrals, Care Plans, and New Consultation. Below this is a toolbar with various icons for actions like Save, Next Problem, Confidentiality, Online Visibility, Run Template, Book Appointment, Create Task, Medication Regime Review, Spell check, Print, Configure, and Search. The patient information bar shows the patient's name as RICHARDS, Anne (Mrs), born 04-May-1977 (41y), and gender as Female. The main area shows a consultation titled '1. <No Problem>' with a problem list containing 'Examination'. A red box highlights a form for recording blood pressure: 'O/E - blood pressure reading' with two input fields, 'mmHg', a green checkmark, and an 'X' to close. Below it, it says 'Most Recent Entry: 11-Jan-2019 10:29:24 - 160/90 mmHg'.

- If the above-mentioned information is missing from the patient record when you launch ExpertCare, you will be prompted to first add the missing codes to the patient record before continuing.

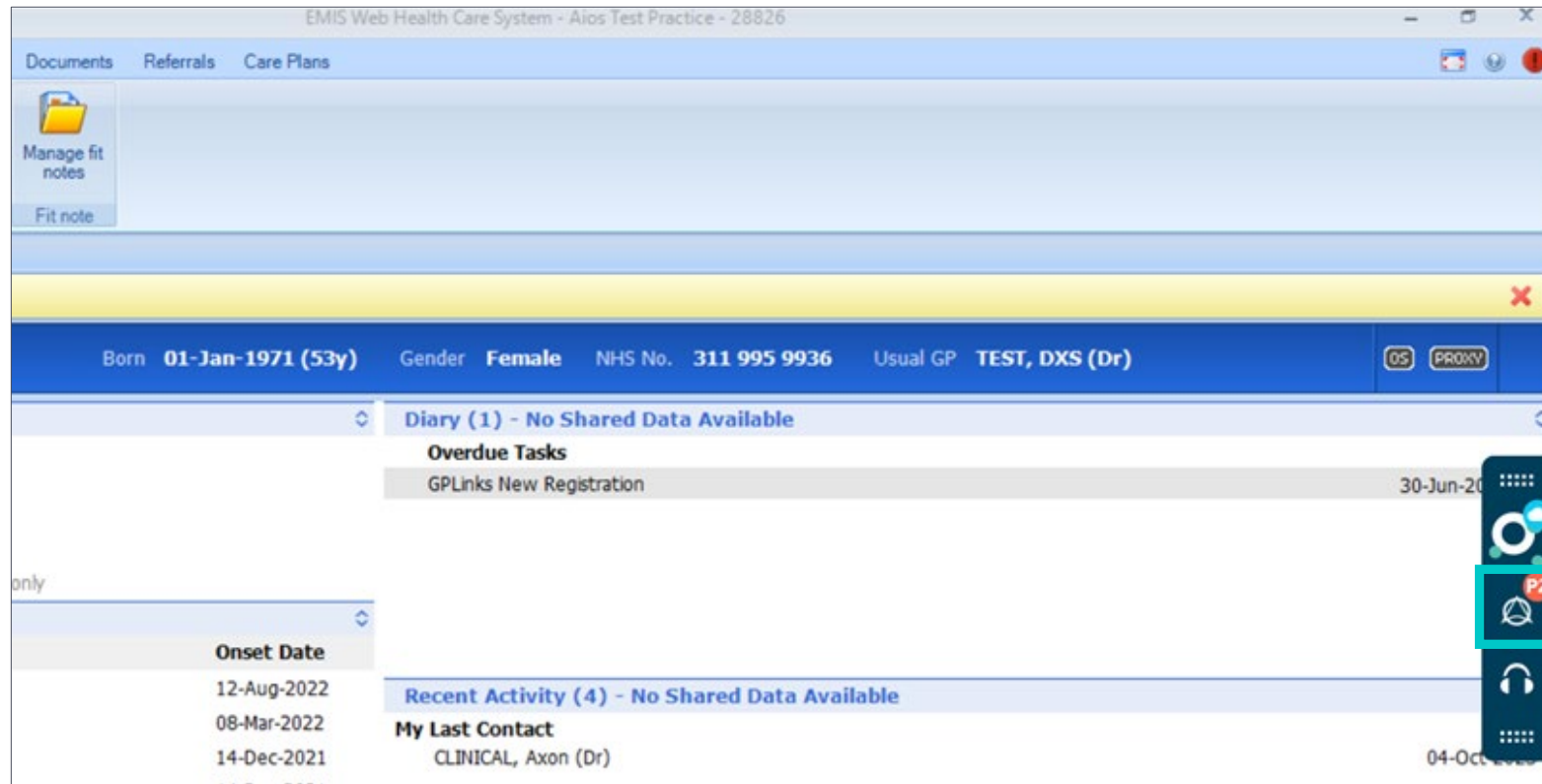
UNABLE TO PROCEED WITH RECOMMENDATION.

THE FOLLOWING DATA HAS NOT BEEN RECORDED:

HYPERTENSION

CLOSE THE BROWSER TAB, RETURN TO THE PATIENT RECORD AND UPDATE

- Click on the “ExpertCare” button located on the floating toolbar to launch ExpertCare. Ensure that the correct patient has been loaded.



- By clicking this button, ExpertCare will pull through the relevant patient and clinical information from the clinical record to the program in order to review the current hypertensive treatment. Based on this information, ExpertCare will make suitable medication recommendations if indicated.

3. Navigating ExpertCare – Tree View

- When ExpertCare opens, it will display the clinical details of the patient for hypertension, with a tree view for easy navigation.

ExpertCare

Search patients, forms and more

UAT Feedback

Active patient in CMS: Ms Polly Expertcare Pipe - Aiosdemo DOB: 01/01/1971 NHS No: 311 995 9936

HYPERTENSION

BP: 147/93 ↑ Target BP: 140/90 eGFR: 40ml/min ⌘ Potassium: 6mmol/l

CLINICAL DETAILS

Relevant Comorbidity	Clinical Codes	Last Entry	Exclude
Chronic kidney disease	i	01/02/2023	<input type="checkbox"/>
Diabetes mellitus	i	12/08/2022	<input type="checkbox"/>
Diabetic nephropathy	i	12/08/2022	<input type="checkbox"/>
Migraine	i	12/08/2022	<input type="checkbox"/>
Oedema	i	12/08/2022	<input type="checkbox"/>
Urinary ACR 30 or more	i	12/08/2022	<input type="checkbox"/>
CKD stage 3	i	01/02/2023	<input type="checkbox"/>
Glomerular filtration rate reduced	i	01/02/2023	<input type="checkbox"/>
Myocardial infarction more than 12 months ago	i	12/08/2022	<input type="checkbox"/>
Potassium high normal	i	27/02/2024	<input type="checkbox"/>

Excluded Comorbidity	Clinical Codes	Rationale	Make Relevant
None		No overridden comorbidities	

Unsuitable Drug Class	Reason	Make Suitable
Calcium Channel Blocker: Rate limiting	Significant risk of bradycardia due to interaction between Beta blocker and rate-limiting Calcium channel blocker	<input type="checkbox"/>

Primary Condition

Patient Status

Current Medication

Hypertension

▶ Clinical Details

▶ Treatment Plan

▶ NICE Recommendations

Help Info

- The tree view allows the user to select the primary condition they wish to review (if not hypertension) and to navigate/toggle between screens relevant to a specific condition.
- When the user selects a “Primary Condition”, its submenu opens with the first entry highlighted in bold and the corresponding screen displayed, i.e., “Hypertension” and “Clinical Details”.

The screenshot displays the DXS ExpertCare interface for a patient named Ms Polly Expertcare Pipe. The patient's DOB is 01/01/1971 and their NHS number is 311 995 9936. The primary condition is Hypertension, with a sub-menu showing 'Primary Condition' (highlighted), 'Hypertension', and 'Diabetes' (marked 'Coming Soon'). The patient status is 53 years old, female. The current medication section is also visible.

HYPERTENSION

BP: 147/93 ↑ Target BP: 140/90 eGFR: 40ml/min ⌵

CLINICAL DETAILS

Relevant Comorbidity	Clinical Codes	Last Entry
Chronic kidney disease	i	01/02/2023
Diabetes mellitus	i	12/08/2022
Diabetic nephropathy	i	12/08/2022
Migraine	i	12/08/2022
Oedema	i	12/08/2022
Urinary ACR 30 or more	i	12/08/2022
CKD stage 3	i	01/02/2023

- The “Patient Status” section displays the patient’s age in years and their gender.

The screenshot displays the DXS ExpertCare interface for a patient. The top navigation bar includes the ExpertCare logo, a search bar, and patient information: "Active patient in CMS: Ms Polly Expertcare Pipe - Alosdemo", "DOB: 01/01/1971", and "NHS No: 311 995 9936".

The left sidebar contains navigation icons and menu items: Home, Patient Status (highlighted), Primary Condition, Hypertension, Diabetes (Coming Soon), Current Medication, and Hypertension.

The main content area is titled "HYPERTENSION" and displays "BP: 147/93 ↑", "Target BP: 140/90", and "eGFR: 40ml/min ⌘". Below this is the "CLINICAL DETAILS" section, which includes a table of relevant comorbidities.

Relevant Comorbidity	Clinical Codes	Last Entry
Chronic kidney disease	i	01/02/2023
Diabetes mellitus	i	12/08/2022
Diabetic nephropathy	i	12/08/2022
Migraine	i	12/08/2022
Oedema	i	12/08/2022
Urinary ACR 30 or more	i	12/08/2022
CKD stage 3	i	01/02/2023

- The “Current Medication” section displays all drugs prescribed by the GP system for the relevant comorbidity within the last 12 months, and any other drugs within the last 3 months listed in alphabetical order when clicked.

ExpertCare

Active patient in CMS: Ms Polly Expertcare Pipe - Alosdemo DOB: 01/01/1971 NHS No: 311 995 9936

HYPERTENSION

BP: 147/93 ↑ Target BP: 140/90 eGFR: 40ml/min ⌘

CLINICAL DETAILS

Relevant Comorbidity	Clinical Codes	Last Entry
Chronic kidney disease	ⓘ	01/02/2023
Diabetes mellitus	ⓘ	12/08/2022
Diabetic nephropathy	ⓘ	12/08/2022
Migraine	ⓘ	12/08/2022
Oedema	ⓘ	12/08/2022
Urinary ACR 30 or more	ⓘ	12/08/2022
CKD stage 3	ⓘ	01/02/2023
Glomerular filtration rate reduced	ⓘ	01/02/2023

Current Medication

- Amlodipine 5mg tablets
- Bisoprolol 5mg tablets
- Indapamide 1.5mg modified-release tablets
- Mefenamic acid 500mg tablets

Hypertension

- The ExpertCare Hypertension pathway searches for current hypertension medication from the following drug classes: ACE-I, angiotensin-II receptor antagonists, aldosterone antagonists, alpha blockers, beta blockers, calcium channel blockers, centrally acting drugs, loop diuretics, thiazide diuretics, renin inhibitors, and vasodilator drugs.
- If the patient is currently on any other rate-limiting or potassium-sparing drugs like amiodarone, digoxin, or amiloride, ExpertCare will display these drugs as they may trigger drug interaction or prescribing advice for bradycardia and hyperkalaemia.

- Hover over a drug to see the date it was prescribed.
- Clicking on a drug prescribed for the relevant comorbidity will display its prescribing details.

The screenshot displays the ExpertCare interface for a patient. The top navigation bar includes the ExpertCare logo and a search bar. Below this, patient information is shown: 'Active patient in CMS: Ms Polly Expertcare Pipe - Aiosdemo', 'DOB: 01/01/1971', and 'NHS No: 311 995 9936'. A left-hand sidebar contains navigation icons for Home, Alerts, and a folder icon. The main content area is titled 'HYPERTENSION' and shows 'BP: 147/93 ↑' and 'Target BP: 140/90'. A 'MEDICATION DETAIL' box is highlighted with a red border, containing the following information:

Product Name	Amlodipine 5mg tablets
Drug	Amlodipine
Dosage	One To Be Taken Each Day
Drug Class	CCB Class
Last Issue Date	04/10/2023

Below the medication details, a list of current medications is shown:

- Amlodipine 5mg tablets**
- Bisoprolol 5mg tablets
- Indapamide 1.5mg modified-release tablets
- Mefenamic acid 500mg tablets

- A drug in “Current Medication” that is not in use or stopped as part of the treatment plan will have a line through it.
- A drug in the “Treatment Plan” which has not been added to the GP system, will be highlighted in yellow.

ExpertCare

Search patients, forms and more

Active patient in CMS: Ms Polly Expertcare Pipe - Alosdemo DOB: 01/01/1971 NHS No: 311 995 9936

HYPERTENSION

BP: 147/93 ↑ Target BP: 140/90 eGFR: 40ml/min ⌵

CLINICAL DETAILS

Relevant Comorbidity	Clinical Codes	Last Entry
Chronic kidney disease	i	01/02/2023
Diabetes mellitus	i	12/08/2022
Diabetic nephropathy	i	12/08/2022
Migraine	i	12/08/2022
Oedema	i	12/08/2022
Urinary ACR 30 or more	i	12/08/2022
CKD stage 3	i	01/02/2023
Glomerular filtration rate reduced	i	01/02/2023
Myocardial infarction more than 12 months ago	i	12/08/2022

Primary Condition

Patient Status

Current Medication

- Amlodipine 5mg tablets
- Bisoprolol 5mg tablets
- Indapamide 1.5mg modified-release tablets
- Mefenamic acid 500mg tablets
- Ramipril tablets

Hypertension

4. Navigating ExpertCare – Clinical Details Screen

- The dashboard displays clinical details (comorbidities and adverse drug reactions) obtained from the patient's record relevant to prescribing decisions for managing hypertension. It also indicates the date the condition was last recorded in the clinical record.

ExpertCare

Search patients, forms and more

UAT Feedback

Active patient in CMS: Ms Polly Expertcare Pipe - Aiosdemo DOB: 01/01/1971 NHS No: 311 995 9936

Primary Condition

Patient Status

Current Medication

Hypertension

➤ Clinical Details

➤ Treatment Plan

➤ NICE Recommendations

Help Info

HYPERTENSION

BP: 147/93 ↑ Target BP: 140/90 eGFR: 40ml/min ⚠ Potassium: 6mmol/l

CLINICAL DETAILS





Relevant Comorbidity	Clinical Codes	Last Entry	Exclude
Chronic kidney disease	i	01/02/2023	<input type="checkbox"/>
Diabetes mellitus	i	12/08/2022	<input type="checkbox"/>
Diabetic nephropathy	i	12/08/2022	<input type="checkbox"/>
Migraine	i	12/08/2022	<input type="checkbox"/>
Oedema	i	12/08/2022	<input type="checkbox"/>
Urinary ACR 30 or more	i	12/08/2022	<input type="checkbox"/>
CKD stage 3	i	01/02/2023	<input type="checkbox"/>
Glomerular filtration rate reduced	i	01/02/2023	<input type="checkbox"/>
Myocardial infarction more than 12 months ago	i	12/08/2022	<input type="checkbox"/>
Potassium high normal	i	27/02/2024	<input type="checkbox"/>

Excluded Comorbidity	Clinical Codes	Rationale	Make Relevant
None		No overridden comorbidities	

Unsuitable Drug Class	Reason	Make Suitable
Calcium Channel Blocker: Rate limiting	Significant risk of bradycardia due to interaction between Beta blocker and rate-limiting Calcium channel blocker	<input type="checkbox"/>

- The top banner area displays the patient's latest blood pressure as recorded in the patient record.

Active patient in CMS: Ms Polly Expertcare Pipe - Aiosdemo DOB: 01/01/1971 NHS No: 311 995 9936

-  Primary Condition
-  Patient Status
-  Current Medication
-  Hypertension
- [▶ Clinical Details](#)

HYPERTENSION

BP: 147/93 ↑
Target BP: 140/90
eGFR: 40ml/min ⌚
Potassium: 6mmol/l

CLINICAL DETAILS

Relevant Comorbidity	Clinical Codes	Last Entry
Chronic kidney disease	i	01/02/2023
Diabetes mellitus	i	12/08/2022
Diabetic nephropathy	i	12/08/2022

- A raised blood pressure will be indicated with an arrow icon. The blood pressure is measured against the patient's specific target blood pressure as outlined in NICE NG136. When the last recorded blood pressure in the record is coded as an average home, ambulatory, or 24-hour blood pressure measurement, the target will be adjusted accordingly, and the type of blood pressure measurement will be indicated on the screen.

HYPERTENSION

BP: 147/93 ↑
Target BP: 140/90
eGFR: 40ml/min ⌚
Potassium: 6mmol/l

HYPERTENSION

ABPM: 134/75
Target BP: 135/85
eGFR: 85ml/min
Potassium: 4mmol/l

- Hover over the blood pressure value to see the date last recorded. A blood pressure value older than 12 months will have an hourglass icon next to it.
- Hover over the Target BP to see if it is a clinic BP target or home / ambulatory / 24-hour BP target.

- The top banner also displays the patient's latest eGFR and potassium value. If these values in the record are older than 12 months, an hourglass icon will be displayed, prompting the user to consider sending the patient for annual renal function tests. Hover over the value to see the date last recorded in the patient record.

HYPERTENSION

BP: 147/93 ↑	Target BP: 140/90	eGFR: 40ml/min ⌚	Potassium: 6mmol/l
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HYPERTENSION

ABPM: 134/75	Target BP: 135/85	eGFR: 85ml/min	Potassium: 4mmol/l
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- If you would like to know what code(s) triggered a “Relevant Comorbidity”, click on the “i” icon.

CLINICAL DETAILS ?			
Relevant Comorbidity	Clinical Codes	Last Entry	Exclude
Chronic kidney disease	i	01/02/2023	<input type="checkbox"/>
Diabetes mellitus	i	12/08/2022	<input type="checkbox"/>
Diabetic nephropathy	i	12/08/2022	<input type="checkbox"/>
Migraine	i	12/08/2022	<input type="checkbox"/>
Oedema	i	12/08/2022	<input type="checkbox"/>
Urinary ACR 30 or more	i	12/08/2022	<input type="checkbox"/>
CKD stage 3	i	01/02/2023	<input type="checkbox"/>
Glomerular filtration rate reduced	i	01/02/2023	<input type="checkbox"/>
Myocardial infarction more than 12 months ago	i	12/08/2022	<input type="checkbox"/>
Potassium high normal	i	27/02/2024	<input type="checkbox"/>

- A pop-up will appear, displaying the relevant code. If there is a diagnostic value linked to the code, it will be displayed before the code text as “(x)”.

Glomerular filtration rate reduced

(40) Estimated glomerular filtration rate using cystatin C Chronic Kidney Disease Epidemiology Collaboration equation per 1.73 square metres	SNOMED - 1011491000000107: 01/02/2023	Glomerular filtration rate reduced
(56) Glomerular filtration rate calculated by abbreviated Modification of Diet in Renal Disease Study Group calculation (observable entity)	SNOMED - 1020291000000106: 12/08/2022	Glomerular filtration rate reduced

CLOSE

- When clicking on “Clinical Details” in the tree view, it will expand and display the relevant conditions for the patient. Clicking on any of the conditions will show the relevant codes that triggered the condition.

ExpertCare

Search patients, forms and more

Active patient in CMS: Ms Polly Expertcare Pipe - Aiosdemo DOB: 01/01/1971 NHS No: 311 995 9936

HYPERTENSION

BP: 147/93 ↑ Target BP: 140/90 eGFR: 40ml/min ⚠











CLINICAL PARAMETER DETAIL

Code Description	Acute ST segment elevation myocardial infarction (disorder)
Event Date	12/08/2022
Coding System	SNOMED
Code	401303003

- Primary Condition
- Patient Status
- Current Medication
- Hypertension
- Clinical Details**
 - Chronic kidney disease
 - Diabetes mellitus
 - Diabetic nephropathy
 - Migraine
 - Oedema
 - Urinary ACR 30 or more
 - CKD stage 3
 - Glomerular filtration rate reduced
 - Myocardial infarction more than 12 months ago**
 - Potassium high normal

4.1 What to do when an incorrect or old code has pulled through from the clinical record

- You can exclude a clinical code from the ExpertCare decision-making process by selecting the “Exclude” tick box on the dashboard. If you select “Exclude”, all codes that triggered the comorbidity will then be set as “Not Relevant”.

CLINICAL DETAILS ?			
Relevant Comorbidity	Clinical Codes	Last Entry	Exclude
Chronic kidney disease		01/02/2023	<input type="checkbox"/>
Diabetes mellitus		12/08/2022	<input type="checkbox"/>
Diabetic nephropathy		12/08/2022	<input type="checkbox"/>
Migraine		12/08/2022	<input type="checkbox"/>
Oedema		12/08/2022	<input type="checkbox"/>
Urinary ACR 30 or more		12/08/2022	<input type="checkbox"/>
CKD stage 3		01/02/2023	<input type="checkbox"/>
Glomerular filtration rate reduced		01/02/2023	<input type="checkbox"/>
Myocardial infarction more than 12 months ago		12/08/2022	<input type="checkbox"/>
Potassium high normal		27/02/2024	<input type="checkbox"/>
Excluded Comorbidity	Clinical Codes	Rationale	Make Relevant
None	No overridden comorbidities		

- A prompt box will appear where a reason for the exclusion will need to be entered.
- Selecting “Override Clinical Parameter” will save the reason entered.

Override Clinical Parameter

Enter reason for overriding Migraine:

Condition resolved


CANCEL

OVERRIDE CLINICAL PARAMETER

- The excluded condition will now be displayed in the “Excluded Comorbidity” table with the date and reason for exclusion.











Excluded Comorbidity	Clinical Codes	Rationale	Make Relevant
Migraine	i	Condition resolved (27/02/2024)	<input type="checkbox"/>
Unsuitable Drug Class	Reason		Make Suitable
Calcium Channel Blocker: Rate limiting	Significant risk of bradycardia due to interaction between Beta blocker and rate-limiting Calcium channel blocker		<input type="checkbox"/>

- If you would like to remove the exclusion, select the “Make Relevant” tick box.

Excluded Comorbidity	Clinical Codes	Rationale	Make Relevant
Migraine		Condition resolved (27/02/2024)	<input type="checkbox"/>
Unsuitable Drug Class	Reason		Make Suitable
Calcium Channel Blocker: Rate limiting	Significant risk of bradycardia due to interaction between Beta blocker and rate-limiting Calcium channel blocker		<input type="checkbox"/>

- When selected, the condition will be taken into consideration in the ExpertCare decision-making process again.

CLINICAL DETAILS

Relevant Comorbidity	Clinical Codes	Last Entry	Exclude
Chronic kidney disease		01/02/2023	<input type="checkbox"/>
Diabetes mellitus		12/08/2022	<input type="checkbox"/>
Diabetic nephropathy		12/08/2022	<input type="checkbox"/>
Migraine		Exclusion removed by: GMP_G6624249 on: 27/02/2024 : TEST	<input type="checkbox"/>
Oedema		12/08/2022	<input type="checkbox"/>
Urinary ACR 30 or more		12/08/2022	<input type="checkbox"/>
CKD stage 3		01/02/2023	<input type="checkbox"/>
Glomerular filtration rate reduced		01/02/2023	<input type="checkbox"/>
Myocardial infarction more than 12 months ago		12/08/2022	<input type="checkbox"/>
Potassium high normal		27/02/2024	<input type="checkbox"/>

4.2 The Unsuitable Drug Class Table

- The “Unsuitable Medication” table displays any contraindicated hypertensive drug classes for the patient. The relevant parameter which triggered the contraindication, i.e., drug allergy, or disease, will also be displayed.
- You can override a drug class that is regarded as unsuitable by selecting the “Make Suitable” tick box.
- If the “Make Suitable” tick box is greyed out, the drug class cannot be prescribed because of a significant drug interaction with one of the patient’s current drugs. This cannot be overridden.

Unsuitable Drug Class	Reason	Make Suitable
Calcium Channel Blocker: Rate limiting	Significant risk of bradycardia due to interaction between Beta blocker and rate-limiting Calcium channel blocker	<input type="checkbox"/>
Aldosterone Antagonist	Potassium high normal: Spironolactone is not recommended	<input type="checkbox"/>
Thiazide Diuretics	Adverse reaction to drug containing sulfonamide: Avoid due to increased risk of hypersensitivity reaction.	<input type="checkbox"/>

- Please enter a reason for the override when the prompt box appears. Selecting “Override Drug CI” will save the reason entered.

Override Drug CI

Enter reason for removing contraindication for TD:

Patient is being monitored

CANCEL

OVERRIDE DRUG CI

- The drug class will no longer be regarded as “Unsuitable” and will be taken into consideration when making medication recommendations.

- If the drug class was selected in error, please deselect the “Make Suitable” tick box.



Unsuitable Drug Class	Reason	Make Suitable
Aldosterone Antagonist	Potassium high normal: Spironolactone is not recommended	<input type="checkbox"/>
Calcium Channel Blocker: Rate limiting	Significant risk of bradycardia due to interaction between Beta blocker and rate-limiting Calcium channel blocker	<input type="checkbox"/>
Thiazide Diuretics	Unsuitability overridden on 27/02/2024: Patient is being monitored	<input checked="" type="checkbox"/>

- Once you are satisfied with the patient’s clinical details, excluded any non-contributory conditions, and reviewed any unsuitable drug classes, select “Clinical Details Reviewed” to continue to the next screen.

Unsuitable Drug Class	Reason	Make Suitable
Calcium Channel Blocker: Rate limiting	Significant risk of bradycardia due to interaction between Beta blocker and rate-limiting Calcium channel blocker	<input type="checkbox"/>
Aldosterone Antagonist	Potassium high normal: Spironolactone is not recommended	<input type="checkbox"/>
Thiazide Diuretics	Adverse reaction to drug containing sulfonamide: Avoid due to increased risk of hypersensitivity reaction.	<input type="checkbox"/>

- For more information, click on the “?” icon to view the help section for this page.

CLINICAL DETAILS

Relevant Comorbidity	Clinical Codes	Last Entry	Exclude
Chronic kidney disease		01/02/2023	<input type="checkbox"/>
Diabetes mellitus		12/08/2022	<input type="checkbox"/>

5. Understanding the ExpertCare Treatment Plan

- The “Treatment Plan” screen indicates which drugs, currently taken by the patient, are compliant with the NICE guidelines applicable to all relevant comorbidities.

ExpertCare

Search patients, forms and more

UAT Feedback

Active patient in CMS: Ms Polly Expertcare Pipe - Alosdemo DOB: 01/01/1971 NHS No: 311 995 9936

Primary Condition

Patient Status

Current Medication

Amlodipine 5mg tablets

Bisoprolol 5mg tablets

Indapamide 1.5mg modified-release tablets

Mefenamic acid 500mg tablets

Hypertension

Clinical Details

Treatment Plan

NICE Recommendations

Urinary ACR 30 or more: NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3).

Myocardial Infarction (ACS): NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely.

Drug Interactions

Increased risk of adverse metabolic effects when a Beta blocker and Thiazide are co-prescribed.

STEP 3

Medication for Action	Information	NICE Concordance	Action
Thiazide-like Diuretics Indapamide 1.5mg modified-release tablets One To Be Taken Each Morning 04/10/2023	Recommendation NG136 advises a thiazide-like diuretic is selected when starting or changing a thiazide; but conventional thiazides should be retained if the blood pressure is controlled. Contraindication Adverse reaction to drug containing sulfonamide Avoid due to increased risk of hypersensitivity reaction. Caution Use with caution in patients at risk of electrolyte imbalance for example nephrotic syndrome or malnutrition. Diabetes mellitus Use with caution as may cause a deterioration in glycaemic control. Glomerular filtration rate reduced Thiazides are ineffective when eGFR is less than 30ml/min with the exception of Metolazone. Monitoring Monitor electrolytes regularly especially on higher doses and in renal impairment or corticoadrenal insufficiency Routine Dosage Initially 1.5mg once daily. Maximum 2.5mg daily.	Drug class is contraindicated.	Select Drug class C/I
Beta Blocker Bisoprolol 5mg tablets	Recommendation Myocardial Infarction (ACS): NG185 recommends starting a Beta blocker after a	NICE concordant. Hypertension NG136 at step 4	Select


- **Treatment Plan Banner** – This section will display useful prescribing information to the user regarding the patient’s current prescription.
 - **NICE Recommendations** – Information displayed here is obtained from relevant NICE guidelines and will suggest to the user what should be done next, if applicable to the patient’s current medication.
 - **Drug Interactions** – Drug interaction advice is displayed for any bradycardia or hyperkalaemia interactions between the patient’s current drugs.
- **Step Button** – This button displays step advice from the NICE Hypertension Guideline (NG136) in line with the treatment step the patient is currently on.


HYPERTENSION


BP: 147/93 ↑
Target BP: 140/90
eGFR: 40ml/min ⌵
Potassium: 6mmol/l

TREATMENT PLAN

STEP 3







NICE Recommendations
Urinary ACR 30 or more: NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3).
Myocardial Infarction (ACS): NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely.

Drug Interactions
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Medication for Action	Information	NICE Concordance	Action
Thiazide-like Diuretics Indapamide 1.5mg modified-release tablets One To Be Taken Each Morning 04/10/2023	<p>Recommendation NG136 advises a thiazide-like diuretic is selected when starting or changing a thiazide; but conventional thiazides should be retained if the blood pressure is controlled.</p> <p>Contraindication Adverse reaction to drug containing sulfonamide Avoid due to increased risk of hypersensitivity reaction.</p> <p>Caution Use with caution in patients at risk of electrolyte imbalance for example nephrotic syndrome or malnutrition.</p> <p>Diabetes mellitus Use with caution as may cause a deterioration in glycaemic control.</p>	Drug class is contraindicated.	<div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">Select</div> <b style="color: red;">Drug class C/I

- Click on the “Step” button to see the treatment step advice.
- Click on “Close” to close the window.

NICE Guidelines




Patient is on Step 3 treatment for hypertension

If hypertension is not controlled in adults taking the optimal tolerated doses of an ACE inhibitor or an ARB plus a CCB and a thiazide-like diuretic, regard them as having resistant hypertension.
Before considering Step 4 treatment for a person with resistant hypertension: confirm elevated clinic blood pressure measurements using ambulatory or home blood pressure recordings & assess for postural hypotension & discuss adherence.
For people with confirmed resistant hypertension, consider adding a fourth antihypertensive drug as Step 4 treatment or seeking specialist advice.

CLOSE

- **Medication for Action** – This section displays the drug class and drug name of the patient’s current medication that the user is still to action.

TREATMENT PLAN




STEP 3




NICE Recommendations
Urinary ACR 30 or more: NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3).
Myocardial Infarction (ACS): NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely.




Drug Interactions
 Increased risk of adverse metabolic effects when a Beta blocker and Thiazide are co-prescribed.

Medication for Action	Information	NICE Concordance	Action
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Beta Blocker Bisoprolol 5mg tablets One To Be Taken Each Day 04/10/2023	<p>Recommendation Myocardial Infarction (ACS) NG185 recommends starting a Beta blocker after a myocardial infarction and continuing treatment for at least 12 months.</p> <p>Caution Diabetes mellitus Use with caution as symptoms of hypoglycaemia may be masked.</p> <p>Routine Dosage Initially 5mg once daily. Maximum 20mg daily.</p> <p>Dose adjustment</p>	NICE concordant. Hypertension NG136 at step 4 Acute Coronary Syndrome NG185	<input style="width: 100%;" type="text" value="Select"/>

- Information** – The information in this section is triggered by the patient’s current medication and relevant comorbidities, as well as drug allergy codes obtained from the patient record. ExpertCare displays useful information regarding drug cautions, drug monitoring, recommended prescribing, discontinuation advice, and contraindications. The information is gathered from various approved and verified resources, such as product SPCs, BNF, and NICE. ExpertCare also advises on the Routine Dosage of a drug for hypertension and will give Dose Adjustment advice where needed for patients with hepatic impairment or reduced glomerular filtration rates. Dosage information is gathered from the approved and verified resources as mentioned in the proceeding statement.




TREATMENT PLAN		STEP 3			
<p>NICE Recommendations Urinary ACR 30 or more: NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3). Myocardial Infarction (ACS): NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely. Drug Interactions Increased risk of adverse metabolic effects when a Beta blocker and Thiazide are co-prescribed.</p>					
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Beta Blocker Bisoprolol 5mg tablets One To Be Taken Each Day 04/10/2023	<p>Recommendation Myocardial Infarction (ACS) NG185 recommends starting a Beta blocker after a myocardial infarction and continuing treatment for at least 12 months.</p> <p>Caution Diabetes mellitus Use with caution as symptoms of hypoglycaemia may be masked.</p> <p>Routine Dosage Initially 5mg once daily. Maximum 20mg daily.</p> <p>Dose adjustment</p>	NICE concordant. Hypertension NG136 at step 4 Acute Coronary Syndrome NG185	<input type="text" value="Select"/>		

- NICE Concordance** – In this section, ExpertCare will provide recommendations regarding the patient's current medication. Recommendations will be in accordance with the NICE guidelines on hypertension (NG136), taking into account the main pathway comorbidities which include diabetes (NG136), ACR > 30 (NG203), angina (CG126), atrial fibrillation (NG196), previous myocardial infarction (NG185), and heart failure (NG106). A medication that is regarded as unsuitable, either because of a contraindication or non-compliance with NICE treatment guidelines, will be displayed against a red background. Drugs that are concordant with current NICE treatment guidelines, will display against a green background.

TREATMENT PLAN		STEP 3			
<p>NICE Recommendations Urinary ACR 30 or more: NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3). Myocardial Infarction (ACS): NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely. Drug Interactions Increased risk of adverse metabolic effects when a Beta blocker and Thiazide are co-prescribed.</p>					
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- **Action Drop-down Menu** – You will be prompted to make a decision for each of the patient's current drugs using the drug optimisation drop-down menu. Any drugs that are not licensed for the use in hypertension will display the text 'Not licensed' in red below the drop-down menu.

TREATMENT PLAN

STEP 3




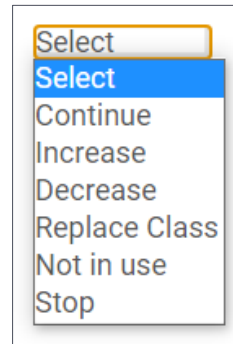
NICE Recommendations
Urinary ACR 30 or more: NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3).
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Drug Interactions
 Increased risk of adverse metabolic effects when a Beta blocker and Thiazide are co-prescribed.

Medication for Action	Information	NICE Concordance	Action
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Beta Blocker Bisoprolol 5mg tablets One To Be Taken Each Day 04/10/2023	<p>Recommendation Myocardial Infarction (ACS) NG185 recommends starting a Beta blocker after a myocardial infarction and continuing treatment for at least 12 months.</p> <p>Caution Diabetes mellitus Use with caution as symptoms of hypoglycaemia may be masked.</p> <p>Routine Dosage Initially 5mg once daily. Maximum 20mg daily.</p> <p>Dose adjustment</p>	NICE concordant. Hypertension NG136 at step 4 Acute Coronary Syndrome NG185	<input style="width: 100%;" type="text" value="Select"/>

5.1 How to use the “Action” drop-down menu

- The next action that should be taken for each current drug the patient is on must be selected from the “Action” drop-down menu before completing the ExpertCare consultation.
- The following optimisation and/or replacement actions are available:



- **Continue** – Select this option if you wish to continue a drug.
 - **Increase** – Select this option if you would like to optimise the drug dose by increasing it.
 - **Decrease** – Select this option if you would like to optimise the drug dose by decreasing it (i.e., if a patient’s BP is normal/low).
 - **Replace Class** – Use this option if you would like to replace a non-recommended drug class.
 - **Replace Drug** – This option is available only when a drug class is green and recommended and you would like to switch a patient to a different drug in the same recommended class, or when a drug within a recommended class is contraindicated because of another comorbidity.
 - **Not in use** – Please use this option when a drug shows in ExpertCare as current, but the patient may no longer be taking it.
 - **Stop** – Select this option if you wish to stop a drug.
- The “Action” drop-down menu will always be on the “Select” option by default. Once you have selected an action on the drop-down menu for a drug, it will move to the bottom of the list with the action indicated either in green (when continuing or optimising), or in red (when replacing or stopping).

- **Continued Medication** – This section displays any drugs that have been actioned as “Continue”, “Increase”, or “Decrease” during the ExpertCare session.

Continued Medication	Information	NICE Concordance	Action
Beta Blocker Bisoprolol 5mg tablets One To Be Taken Each Day 04/10/2023 Continue	Recommendation Myocardial Infarction (ACS) NG185 recommends starting a Beta blocker after a myocardial infarction and continuing treatment for at least 12 months. Caution Diabetes mellitus Use with caution as symptoms of hypoglycaemia may be masked. Routine Dosage Initially 5mg once daily. Maximum 20mg daily. Dose adjustment Glomerular filtration rate reduced Maximum 10mg once daily when eGFR less than 20ml/min. Unlicensed Myocardial Infarction (ACS) Not licensed for post-infarct prophylaxis.	NICE concordant. Hypertension NG136 at step 4 Acute Coronary Syndrome NG185	<input type="text" value="Continued"/>
Calcium Channel Blocker: Non rate-limiting Amlodipine 5mg tablets One To Be Taken Each Day 04/10/2023 Continue	Routine Dosage Initially 5mg once daily. Maximum 10mg daily.	NICE concordant. Hypertension NG136	<input type="text" value="Continued"/>

- **Started Medication** – This section displays new drugs added to the patient’s treatment for conformance with NICE guidelines for hypertension as recommended by ExpertCare during the session.

Started Medication	Information	NICE Concordance	Action
Angiotensin Converting Enzyme Ramipril 27/02/2024 New drug replacing Indapamide	Recommendation Myocardial Infarction (ACS) NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely. Urinary ACR 30 or more NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3). Recommendation Diabetes mellitus NG136 recommends an ACE inhibitor or Angiotensin-II blocker at step 1 for adults with type 2 diabetes irrespective of age or family origin. Caution Glomerular filtration rate reduced Initially start on low dose and titrate cautiously due to increased risk of hyperkalaemia/deterioration in renal function. Chronic kidney disease NG203 advises discontinuation of an ACE inhibitor or Angiotensin-II blocker if the serum potassium increases to 6.0mmol/litre.	NICE concordant. Hypertension NG136 Acute Coronary Syndrome NG185 Chronic kidney disease NG203	<input type="text" value="Started"/>




- **Stopped Medication** – This section displays any drugs stopped, not in use, or replaced during the ExpertCare session.

Stopped Medication	Information	NICE Concordance	Action
Thiazide-like Diuretics Indapamide 1.5mg modified-release tablets One To Be Taken Each Morning 04/10/2023 Replaced by Ramipril	Contraindication Adverse reaction to drug containing sulfonamide Avoid due to increased risk of hypersensitivity reaction.		Stopped Drug class C/I

5.2 How to use the “NICE Recommendations” to replace a drug

- If ExpertCare recommends that a drug needs to be replaced because of non-conformance to NICE guidelines or a contraindication, you can do so by using the “Action” drop-down menu.
- Select the “Replace Class” option from the “Action” drop-down menu.

TREATMENT PLAN

STEP 3




NICE Recommendations
Urinary ACR 30 or more: NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3).
Myocardial Infarction (ACS): NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely.
Drug Interactions
 Increased risk of adverse metabolic effects when a Beta blocker and Thiazide are co-prescribed.

Medication for Action	Information	NICE Concordance	Action
Thiazide-like Diuretics Indapamide 1.5mg modified-release tablets One To Be Taken Each Morning 04/10/2023	<p>Recommendation NG136 advises a thiazide-like diuretic is selected when starting or changing a thiazide; but conventional thiazides should be retained if the blood pressure is controlled.</p> <p>Contraindication Adverse reaction to drug containing sulfonamide Avoid due to increased risk of hypersensitivity reaction.</p> <p>Caution Use with caution in patients at risk of electrolyte imbalance for example nephrotic syndrome or malnutrition.</p> <p>Diabetes mellitus Use with caution as may cause a deterioration in glycaemic control.</p> <p>Glomerular filtration rate reduced Thiazides are ineffective when eGFR is less than 30ml/min with the exception of Metolazone.</p> <p>Monitoring Monitor electrolytes regularly especially on higher doses and in renal impairment or corticoadrenal insufficiency</p> <p>Routine Dosage Initially 1.5mg once daily. Maximum 2.5mg daily.</p>	Drug class is contraindicated.	<div style="border: 1px solid #ccc; padding: 5px; width: fit-content;"> Select Select Continue Increase Decrease Replace Class Not in use Stop </div>

- Once you have made your selection, the “Next Recommended Drug Class” window will open. ExpertCare will then display the next recommended drug class for the patient to achieve conformance with NICE guidelines for hypertension and relevant comorbidities.

NEXT RECOMMENDED DRUG CLASS

?

▣ **Renin Angiotensin System**

Recommendation

Myocardial Infarction (ACS):
NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely.

Urinary ACR 30 or more:
NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3).

Recommendation

Diabetes mellitus:
NG136 recommends an ACE inhibitor or Angiotensin-II blocker at step 1 for adults with type 2 diabetes irrespective of age or family origin.

Caution

Glomerular filtration rate reduced:
Initially start on low dose and titrate cautiously due to increased risk of hyperkalaemia/deterioration in renal function.

Chronic kidney disease:
NG203 advises discontinuation of an ACE inhibitor or Angiotensin-II blocker if the serum potassium increases to 6.0mmol/litre.

Initiation
NICE CKS advises checking serum electrolytes/renal function before treatment and 1 to 2 weeks after initiation or dose increase and then annually.

Chronic kidney disease:
NG203 advises against starting an ACE inhibitor or Angiotensin-II blocker in chronic kidney disease if the pre-treatment serum potassium is greater than 5.0mmol/litre.

Dose adjustment

Chronic kidney disease:
NG203 advises stopping or reducing the dose of an ACE inhibitor or Angiotensin-II blocker if the eGFR falls more than 25% or the creatinine rises more than 30%.
NG203 advises do not modify the dose of ACE inhibitor or Angiotensin-II blocker if the fall in eGFR is less than 25% or rise in creatinine is less than 30% but instead repeat renal function after 1 to 2 weeks.

Monitoring
NICE CKS recommends monitoring serum electrolytes and renal function annually with more frequent tests in renal impairment and the elderly.


▣ **Angiotensin Receptor Blocker**

Losartan	<p>Indication Diabetic nephropathy: Licensed for type 2 diabetic nephropathy.</p> <p>Routine Dosage Initially 50mg once daily or with diuretics/elderly 25mg daily. Maximum 100mg daily.</p> <p>Dose adjustment Glomerular filtration rate reduced:</p>	<input type="checkbox"/>
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- Information from the product SPC regarding the drug class, as well as any specific warnings or indications that apply to individual drugs, will be displayed. Recommended routine dosage advice for hypertension is also displayed for each drug in a drug class, with dose adjustment advice included for patients with hepatic impairment or reduced glomerular filtration rates.

- Once the patient has agreed to start on the recommended medication, you can select a drug from the list provided. If your practice or PCN have opted for the local formulary functionality in ExpertCare, drugs on the formulary will be indicated with a “capsule” icon.

Angiotensin Receptor Blocker

Losartan	<p><i>Indication</i> Diabetic nephropathy: Licensed for type 2 diabetic nephropathy.</p> <p><i>Routine Dosage</i> Initially 50mg once daily or with diuretics/elderly 25mg daily. Maximum 100mg daily.</p> <p><i>Dose adjustment</i> Glomerular filtration rate reduced:</p>	<input type="checkbox"/> 
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- If you decide not to replace the drug with one of the drugs provided on the “Next Recommended Drug Class” window, select the “Return/Cancel” button.

Routine Dosage
Initially 40mg once daily or elderly 20mg daily. Maximum 80mg daily.

Dose adjustment
Glomerular filtration rate reduced:
Initially 20mg once daily.

RETURN/CANCEL

RECOMMENDED DRUGS UNSUITABLE

- If you decide that the recommended new drug class is not suitable for your patient, select the “Recommended Drugs Unsuitable” button.

Routine Dosage
Initially 40mg once daily or elderly 20mg daily. Maximum 80mg daily.

Dose adjustment
Glomerular filtration rate reduced:
Initially 20mg once daily.

RETURN/CANCEL

RECOMMENDED DRUGS UNSUITABLE

- You will be prompted to confirm your decision.

Confirm Unsuitability

Angiotensin Converting Enzyme
Angiotensin Receptor Blocker

CANCEL

CONFIRM

- Select “Confirm”. The next NICE recommended drug class will be displayed in the window. The unsuitable drug class will now display in the “Unsuitable Medication” table on the “Clinical Details” screen (see section 4.2) and will not be available for reselection.
- If this was done in error, please navigate back to the “Clinical Details” screen and select the “Make Suitable” tick box.

Unsuitable Drug Class	Reason	Make Suitable
Angiotensin Converting Enzyme	Practitioner/Patient considers ACE inhibitor unsuitable.	<input type="checkbox"/>
Aldosterone Antagonist	Potassium high normal: Spironolactone is not recommended	<input type="checkbox"/>
Thiazide Diuretics	Adverse reaction to drug containing sulfonamide: Avoid due to increased risk of hypersensitivity reaction.	<input type="checkbox"/>
Angiotensin Receptor Blocker	Practitioner/Patient considers angiotensin-II blocker unsuitable.	<input type="checkbox"/>
Renin Angiotensin System	Practitioner/Patient considers ACE inhibitor unsuitable and Practitioner/Patient considers angiotensin-II blocker unsuitable.	<input type="checkbox"/>
Calcium Channel Blocker: Rate limiting	Significant risk of bradycardia due to interaction between Beta blocker and rate-limiting Calcium channel blocker	<input type="checkbox"/>

- After you have selected an action from the “Action” drop-down menu for all current drugs, the following will occur.

- The replaced medication will now show in the “Stopped Medication” section with an indication of which drug it was replaced by.

Stopped Medication	Information	NICE Concordance	Action
Thiazide-like Diuretics Indapamide 1.5mg modified-release tablets One To Be Taken Each Morning 04/10/2023 Replaced by Ramipril	Contraindication Adverse reaction to drug containing sulfonamide Avoid due to increased risk of hypersensitivity reaction.		Stopped Drug class C/I

- The new drug will show in the “Started Medication” section.




Started Medication	Information	NICE Concordance	Action
Angiotensin Converting Enzyme Ramipril 27/02/2024 New drug replacing Indapamide	Recommendation Myocardial Infarction (ACS) NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely. Urinary ACR 30 or more NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3). Recommendation Diabetes mellitus NG136 recommends an ACE inhibitor or Angiotensin-II blocker at step 1 for adults with type 2 diabetes irrespective of age or family origin. Caution Glomerular filtration rate reduced Initially start on low dose and titrate cautiously due to increased risk of hyperkalaemia/deterioration in renal function. Chronic kidney disease NG203 advises discontinuation of an ACE inhibitor or Angiotensin-II blocker if the serum potassium increases to 6.0mmol/litre.	NICE concordant. Hypertension NG136 Acute Coronary Syndrome NG185 Chronic kidney disease NG203	Started

- Drugs that were either “Continued”, “Increased”, or “Decreased” will display in the “Continued Medication” section.

Continued Medication	Information	NICE Concordance	Action
Beta Blocker Bisoprolol 5mg tablets One To Be Taken Each Day 04/10/2023 Continue	Recommendation Myocardial Infarction (ACS) NG185 recommends starting a Beta blocker after a myocardial infarction and continuing treatment for at least 12 months. Caution Diabetes mellitus Use with caution as symptoms of hypoglycaemia may be masked. Routine Dosage Initially 5mg once daily. Maximum 20mg daily. Dose adjustment Glomerular filtration rate reduced Maximum 10mg once daily when eGFR less than 20ml/min. Unlicensed Myocardial Infarction (ACS) Not licensed for post-infarct prophylaxis.	NICE concordant. Hypertension NG136 at step 4 Acute Coronary Syndrome NG185	Continued
Calcium Channel Blocker: Non rate-limiting Amlodipine 5mg tablets One To Be Taken Each Day 04/10/2023 Continue	Routine Dosage Initially 5mg once daily. Maximum 10mg daily.	NICE concordant. Hypertension NG136	Continued

5.3 How to add another drug

- If the patient's current blood pressure is raised and you would like to add another NICE recommended drug to bring the patient's blood pressure under control, you can do so by selecting the "Add Another Drug" button or selecting "NICE Recommendations" in the tree view.

 Primary Condition  Patient Status  Current Medication	<h2>HYPERTENSION</h2>						
	BP: 147/93 ↑	Target BP: 140/90					
	<h3>TREATMENT PLAN</h3>						
	<p>NICE Recommendations</p> <p>Drug Interactions</p>						
	<table border="1"> <thead> <tr> <th>Continued Medication</th> <th>Information</th> </tr> </thead> <tbody> <tr> <td> Beta Blocker Bisoprolol 5mg tablets One To Be Taken Each Day 04/10/2023 Continue </td> <td> Recommendation Myocardial Infarction (ACS) NG185 recommends starting a Beta blocker after a myocardial infarction and continuing treatment for at least 12 months. Caution Diabetes mellitus Use with caution as symptoms of hypoglycaemia may be masked. Routine Dosage Initially 5mg once daily. Maximum 20mg daily. Dose adjustment Glomerular filtration rate reduced Maximum 10mg once daily when eGFR less than 20ml/min. Unlicensed Myocardial Infarction (ACS) Not licensed for post-infarct prophylaxis. </td> </tr> <tr> <td> Calcium Channel Blocker: Non rate-limiting Amlodipine 5mg tablets One To Be Taken Each Day 04/10/2023 Continue </td> <td> Routine Dosage Initially 5mg once daily. Maximum 10mg daily. </td> </tr> </tbody> </table>		Continued Medication	Information	Beta Blocker Bisoprolol 5mg tablets One To Be Taken Each Day 04/10/2023 Continue	Recommendation Myocardial Infarction (ACS) NG185 recommends starting a Beta blocker after a myocardial infarction and continuing treatment for at least 12 months. Caution Diabetes mellitus Use with caution as symptoms of hypoglycaemia may be masked. Routine Dosage Initially 5mg once daily. Maximum 20mg daily. Dose adjustment Glomerular filtration rate reduced Maximum 10mg once daily when eGFR less than 20ml/min. Unlicensed Myocardial Infarction (ACS) Not licensed for post-infarct prophylaxis.	Calcium Channel Blocker: Non rate-limiting Amlodipine 5mg tablets One To Be Taken Each Day 04/10/2023 Continue
Continued Medication	Information						
Beta Blocker Bisoprolol 5mg tablets One To Be Taken Each Day 04/10/2023 Continue	Recommendation Myocardial Infarction (ACS) NG185 recommends starting a Beta blocker after a myocardial infarction and continuing treatment for at least 12 months. Caution Diabetes mellitus Use with caution as symptoms of hypoglycaemia may be masked. Routine Dosage Initially 5mg once daily. Maximum 20mg daily. Dose adjustment Glomerular filtration rate reduced Maximum 10mg once daily when eGFR less than 20ml/min. Unlicensed Myocardial Infarction (ACS) Not licensed for post-infarct prophylaxis.						
Calcium Channel Blocker: Non rate-limiting Amlodipine 5mg tablets One To Be Taken Each Day 04/10/2023 Continue	Routine Dosage Initially 5mg once daily. Maximum 10mg daily.						
<table border="1"> <thead> <tr> <th>Started Medication</th> <th>Information</th> </tr> </thead> <tbody> <tr> <td> Angiotensin Converting Enzyme Ramipril 27/02/2024 </td> <td> Recommendation Myocardial Infarction (ACS) NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely. </td> </tr> </tbody> </table>		Started Medication	Information	Angiotensin Converting Enzyme Ramipril 27/02/2024	Recommendation Myocardial Infarction (ACS) NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely.		
Started Medication	Information						
Angiotensin Converting Enzyme Ramipril 27/02/2024	Recommendation Myocardial Infarction (ACS) NG185 recommends starting an ACE inhibitor (or Angiotensin-II blocker if intolerant) after a myocardial infarction and continuing treatment indefinitely.						

- Please note that the “Add Another Drug” button and “NICE Recommendations” will only become available once a selection from the “Action” drop-down menu for all current drugs has been made.

Stopped Medication	Information	NICE Concordance	Action
Thiazide-like Diuretics Indapamide 1.5mg modified-release tablets One To Be Taken Each Morning 04/10/2023 Replaced by Ramipril	Contraindication Adverse reaction to drug containing sulfonamide reaction.	Avoid due to increased risk of hypersensitivity reaction.	<input type="text" value="Stopped"/> Drug class C/I

- The “Next Recommended Drug Class” window will appear, and ExpertCare will recommend an additional drug class to keep the patient’s blood pressure under control whilst achieving conformance with the NICE guidelines.
- Select a drug from the suggested list on the “Next Recommended Drug Class” window, as explained in section 5.2.
- The newly added drug will now display in the “Started Medication” section with the wording “New Drug” added in green.

Started Medication	Information	NICE Concordance	Action
Alpha Blocker Doxazosin 27/02/2024 New drug	Routine Dosage Initially 1mg once daily up to 16mg daily. Modified release 4mg once daily up to 8mg once daily.	NICE concordant. Hypertension NG136 at step 4	<input type="text" value="Started"/>

5.4 What to do when a drug is not recommended

- ExpertCare will indicate that a drug is not recommended either because of non-conformance with NICE guidelines or because the drug or drug class is contraindicated for the patient.
- You should consider the recommendation and then indicate by using the “Action” drop-down menu what the next action will be:
 - “Continue” the drug as the patient may need it for another comorbidity not relevant to hypertension and related conditions.
 - “Decrease” the dose to start tapering the patient off the drug.
 - “Replace Drug Class” to replace the drug with one from a suitable drug class for the patient that is conformant with NICE guidelines.
 - The “Replace Drug” option is available when a drug within a drug class is contraindicated but the drug class is still recommended. The drug can then be replaced with a drug from the same class that is not contraindicated.

- “Stop” the drug.

HYPERTENSION

BP: 125/85 Target BP: 140/90 eGFR: No value Potassium: No value

TREATMENT PLAN

STEP 3

NICE Recommendations
Atrial fibrillation: Add a non rate-limiting Calcium channel blocker. Diltiazem can be used if rate control is not satisfactory.
Drug Interactions
 Increased risk of hyperkalaemia when an ACE inhibitor or Angiotensin-II blocker and an Aldosterone antagonist are co-prescribed. Monitor potassium closely.

Medication for Action	Information	NICE Concordance	Action
Aldosterone Antagonist Spironolactone tablets 27/02/2024	<p>Caution Glomerular filtration rate reduced Avoid if eGFR less than 30ml/min.</p> <p>Monitoring Glomerular filtration rate reduced Regular electrolytes are advised due to increased risk of hyperkalaemia.</p> <p>Chronic kidney disease NG203 advises more frequent monitoring of serum potassium when an ACE inhibitor or Angiotensin-II blocker is combined with another drug known to promote hyperkalaemia.</p> <p>Routine Dosage Initial and maintenance dose 25mg once daily in Hypertension. Other indications may require a higher dose.</p>	Not concordant.	<input type="text" value="Select"/> <input type="button" value="Select"/> Continue Increase Decrease Replace Class Not in use Stop
Beta Blocker Metoprolol tablets 27/02/2024	<p>Recommendation Atrial fibrillation NG196 recommends a Beta blocker (other than sotalol) or a rate-limiting Calcium channel blocker as initial rate-control monotherapy.</p> <p>Angina on exertion CG126 recommends a Beta blocker or Calcium channel blocker as 1st line treatment for stable angina.</p> <p>Contraindication COPD Avoid in chronic obstructive pulmonary disease.</p> <p>Caution Hepatic impairment Avoid in severe hepatic impairment.</p> <p>Indication Angina on exertion Licensed for angina.</p> <p>Discontinuation Angina on exertion Taper dose gradually to avoid a rebound worsening of myocardial ischaemia.</p> <p>Routine Dosage Initially 100mg once daily increased if necessary to 200mg daily. Maximum 400mg daily in divided doses.</p> <p>Dose adjustment Hepatic impairment Reduce dose in severe hepatic impairment.</p>	NICE concordant. The drug class is recommended but the drug is contraindicated.	<input type="text" value="Select"/> <input type="button" value="Select"/> Continue Increase Decrease Replace Drug Replace Class Not in use Stop

- If you decide to override the recommendation from ExpertCare by selecting “Continue”, “Increase”, or “Decrease” from the “Action” drop-down menu, you will be prompted to include a reason for the override. Select a reason from the drop-down list.

Continue Unrecommended Drug

CANCEL

Select Option

Select Option

Deferred NICE compliance

Licensed indication

Unlicensed indication

Drug interaction

Specialist advised

Clinician preference

Patient preference

Other

CONTINUE DRUG

- If you select the “Other” option from the drop-down list, you will be prompted to enter a reason. The reason will then be saved and displayed on the screen.

Continued Medication	Information	NICE Concordance	Action
Aldosterone Antagonist Spironolactone tablets 27/02/2024 Continue	<p>Caution</p> <p>Glomerular filtration rate reduced Avoid if eGFR less than 30ml/min.</p> <p>Monitoring</p> <p>Glomerular filtration rate reduced Regular electrolytes are advised due to increased risk of hyperkalaemia.</p> <p>Chronic kidney disease NG203 advises more frequent monitoring of serum potassium when an ACE inhibitor or Angiotensin-II blocker is combined with another drug known to promote hyperkalaemia.</p> <p>Routine Dosage</p> <p>Initial and maintenance dose 25mg once daily in Hypertension. Other indications may require a higher dose.</p>	Not concordant but retained: Clinician preference	<input style="width: 100%;" type="text" value="Continued"/>

- Remember to make the corresponding changes to the non-recommended drug in your clinical system after the ExpertCare session.

5.5 What to do when a patient is on a combination medication

- When a patient is on a medication containing more than one active ingredient for hypertension, ExpertCare will consider both active ingredients for conformance and decision-making.
- On the “Treatment Plan” screen, any combination medication will be in the “Combination Medication to be Actioned” section. Even though the active ingredients are shown separately with their relevant prescribing advice, they are managed in combination. This means that one “Action” drop-down menu will be used for the combination medication.
- The user can only “Continue” or “Stop” a combination medication. If one of the active ingredients in the combination is not conformant, the user should decide if they want to stop the combination medication all together and add conformant drugs as separate formulations or override the ExpertCare recommendation by selecting “Continue”. The user will be prompted to enter a reason for the override as per section 5.4.

TREATMENT PLAN

STEP 2

NICE Recommendations
NG136 recommends a combination of an ACE inhibitor or Angiotensin-II blocker plus Calcium channel blocker plus thiazide-like diuretic at step 3.

Drug Interactions

Medication for Action	Information	NICE Concordance	Action
Combination Medication to Action			
Angiotensin Receptor Blocker Irbesartan 150mg / Hydrochlorothiazide 12.5mg tablets One To Be Taken Each Day 14/02/2024	<p>Monitoring NICE CKS recommends monitoring serum electrolytes and renal function annually with more frequent tests in renal impairment and the elderly.</p> <p>Routine Dosage Initially 150mg once daily but if elderly 75mg daily. Maximum 300mg daily.</p>	Hydrochlorothiazide and Irbesartan are prescribed in combination. NICE concordant. Hypertension NG136	<input style="width: 100px;" type="text" value="Select"/>
Thiazide Diuretics Irbesartan 150mg / Hydrochlorothiazide 12.5mg tablets One To Be Taken Each Day 14/02/2024	<p>Recommendation NG136 advises a thiazide-like diuretic is selected when starting or changing a thiazide; but conventional thiazides should be retained if the blood pressure is controlled.</p> <p>Caution Use with caution in patients at risk of electrolyte imbalance for example nephrotic syndrome or malnutrition.</p> <p>Monitoring Monitor electrolytes regularly especially on higher doses and in renal impairment or corticoadrenal insufficiency</p> <p>Routine Dosage Only available in combination with other drugs.</p>	Hydrochlorothiazide and Irbesartan are prescribed in combination. NICE concordant. Hypertension NG136	

End Combination Medication

5.6 What to do when a patient is on more than one strength of the same drug

- ExpertCare will display any hypertensive drugs from the patient record with the same active ingredient but prescribed at different strengths as recorded in the last twelve months.
- This will be indicated on the “Treatment Plan” screen.
- If the user would like to remove one of the strengths, they can do so by selecting “Not in use”, “Stop”, or “Replace Class” from the “Action” drop-down menu on the “Treatment Plan” screen (see section 5.1).
- If the patient is currently taking both strengths of the drug, the user can follow the usual process for the “Treatment Plan” screen as explained in section 5. Please note that both strengths of the drug will be actioned individually.

TREATMENT PLAN

STEP 1

NICE Recommendations
NG136 recommends that adults not controlled on an ACE inhibitor or Angiotensin-II blocker should be offered in addition either a Calcium channel blocker or a thiazide-like diuretic.

Drug Interactions

Medication for Action	Information	NICE Concordance	Action
Angiotensin Converting Enzyme Lisinopril 2.5mg tablets One To Be Taken Each Day 06/02/2024	<p>Recommendation Adult under 55 yrs NG136 recommends an ACE inhibitor or Angiotensin-II blocker at step 1 for adults aged under 55 but not of black African/Caribbean family origin.</p> <p>Caution Glomerular filtration rate reduced Initially start on low dose and titrate cautiously due to increased risk of hyperkalaemia/deterioration in renal function.</p> <p>Chronic kidney disease NG203 advises discontinuation of an ACE inhibitor or Angiotensin-II blocker if the serum potassium increases to 6.0mmol/litre.</p> <p>Monitoring NICE CKS recommends monitoring serum electrolytes and renal function annually with more frequent tests in renal impairment and the elderly.</p> <p>Routine Dosage Initially 10mg once daily or with diuretic 2.5mg daily. Maximum 80mg daily.</p> <p>Dose adjustment Chronic kidney disease NG203 advises stopping or reducing the dose of an ACE inhibitor or Angiotensin-II blocker if the eGFR falls more than 25% or the creatinine rises more than 30%. NG203 advises do not modify the dose of ACE inhibitor or Angiotensin-II blocker if the fall in eGFR is less than 25% or rise in creatinine is less than 30% but instead repeat renal function after 1 to 2 weeks.</p> <p>Glomerular filtration rate reduced Initially 2.5mg once daily. Maximum 40mg daily.</p>	NICE concordant. Patient is on more than one strength of the same drug. Hypertension NG136	<input style="width: 100%;" type="text" value="Select"/>
Angiotensin Converting Enzyme Lisinopril 5mg tablets One To Be Taken Each Day 14/02/2024		See above	<input style="width: 100%;" type="text" value="Select"/>

5.7 A patient using two different drugs from the same class

- If a patient is on two different drugs from the same drug class, ExpertCare will prompt the user to discontinue one of them.
- Drugs from the same class are indicated in amber on the “Treatment Plan” screen with red text in the “Action” column.

TREATMENT PLAN

STEP 1

NICE Recommendations
 Drug Interactions

Medication for Action	Information	NICE Concordance	Action
Duplicate Medication To Stop			
Angiotensin Converting Enzyme Lisinopril tablets 27/02/2024	<p>Recommendation Urinary ACR 30 or more NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3).</p> <p>Monitoring NICE CKS recommends monitoring serum electrolytes and renal function annually with more frequent tests in renal impairment and the elderly.</p> <p>Routine Dosage Initially 10mg once daily or with diuretic 2.5mg daily. Maximum 80mg daily.</p>	NICE concordant. Chronic kidney disease NG203 Hypertension NG136	<div style="border: 1px solid #ccc; padding: 2px; width: 100%; margin-bottom: 5px;">Select</div> <p style="color: red; font-weight: bold; margin: 0;">Patient is on 2 drugs from the same class</p>
Angiotensin Converting Enzyme Enalapril tablets 27/02/2024	<p>Recommendation Urinary ACR 30 or more NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3).</p> <p>Monitoring NICE CKS recommends monitoring serum electrolytes and renal function annually with more frequent tests in renal impairment and the elderly.</p> <p>Routine Dosage Initially 5mg once daily or if on a diuretic 2.5mg daily. Maximum 40mg daily.</p>	NICE concordant. Chronic kidney disease NG203 Hypertension NG136	<div style="border: 1px solid #ccc; padding: 2px; width: 100%; margin-bottom: 5px;">Select</div> <p style="color: red; font-weight: bold; margin: 0;">Patient is on 2 drugs from the same class</p>



End Duplicate Medication

5.8 How to reinstate a medication that has been stopped

- If you have marked a medication as “Stopped” or “Not in use” in the ExpertCare system, and would like to reverse this decision, you can select the “Reinstate” option on the “Action” drop-down menu in the “Stopped Medication” section.

TREATMENT PLAN

STEP 1

NICE Recommendations
 Drug Interactions

Continued Medication	Information	NICE Concordance	Action
Angiotensin Converting Enzyme Captopril tablets 27/02/2024 Continue	<p>Recommendation</p> <p>Diabetes mellitus NG136 recommends an ACE inhibitor or Angiotensin-II blocker at step 1 for adults with type 2 diabetes irrespective of age or family origin.</p> <p>Caution</p> <p>Diabetes mellitus Use with caution as may lower blood glucose and increase risk of hyperkalaemia.</p> <p>Monitoring</p> <p>NICE CKS recommends monitoring serum electrolytes and renal function annually with more frequent tests in renal impairment and the elderly.</p> <p>Routine Dosage</p> <p>Initially 12.5mg twice daily or with diuretic 6.25mg twice daily. Maximum 150mg daily in two divided doses.</p>	NICE concordant. Hypertension NG136	<input type="text" value="Continued"/>
Stopped Medication	Information	NICE Concordance	Action
Calcium Channel Blocker: Non rate-limiting Amlodipine tablets 27/02/2024 Stopped Deferred NICE compliance			<input type="text" value="Stopped"/> <input checked="" type="text" value="Stopped"/> <input type="text" value="Reinstate"/>

END CONSULTATION

ADD ANOTHER DRUG

- You will be prompted to confirm your decision.



Reinstating Amlodipine

WARNING: By reinstating **Amlodipine**, ExpertCare will re-evaluate the patient's medication status. Actions taken during this session may have to be reconsidered.

CANCEL

REINSTATE DRUG

- IMPORTANT:** When a drug is reinstated, ExpertCare will analyse the patient's complete prescription again and may change the recommendations based on the patient's current medication that now includes the reinstated drug.
- Please note, these changes will not affect the patient's medication in the clinical system. Remember to make the corresponding changes to the non-recommended drug in your clinical system after the ExpertCare session.
- For more information, click on the "?" icon to view the help section for this page.

TREATMENT PLAN		STEP 1		
NICE Recommendations Drug Interactions				
Continued Medication	Information	NICE Concordance	Action	
Angiotensin Converting Enzyme Captopril tablets 27/02/2024 Continue	<p>Recommendation Diabetes mellitus NG136 recommends an ACE inhibitor or Angiotensin-II blocker at step 1 for adults with type 2 diabetes irrespective of age or family origin.</p> <p>Caution Diabetes mellitus Use with caution as may lower blood glucose and increase risk of hyperkalaemia.</p> <p>Monitoring NICE CKS recommends monitoring serum electrolytes and renal function annually with more frequent tests in renal impairment and the elderly.</p> <p>Routine Dosage Initially 12.5mg twice daily or with diuretic 6.25mg twice daily. Maximum 150mg daily in two divided doses.</p>	NICE concordant. Hypertension NG136	<input style="width: 60px;" type="text" value="Continued"/>	

5.9 Ending your consultation and using the ExpertCare modal view

- After you have reviewed the recommendations made by ExpertCare regarding the patient's current hypertension medication to help achieve conformance with the NICE guidelines, you can end your consultation.
- Ensure that you have selected an action from the "Action" drop-down for each medication.
- If you have selected an action from the "Action" drop-down menu for all current drugs, the "End Consultation" button will appear at the bottom of the page. Click the "End Consultation" button to end the consultation.

Information	NICE Concordance	Action
Contraindication Adverse reaction to drug containing sulfonamide Avoid due to increased risk of hypersensitivity reaction.		Stopped Drug class C/I
END CONSULTATION		ADD ANOTHER DRUG

- By clicking "End Consultation", the decisions made for the patient during this session of ExpertCare will be saved to the patient's record in ExpertCare. The decisions made will not be saved to the clinical system. It is the responsibility of the user to return to the clinical system and prescribe any new medications, stop non-recommended medications, or optimise current medications, as recommended by ExpertCare for the patient.

- Once “End Consultation” has been clicked, you will be navigated to the medication module in the clinical system and the ExpertCare modal view will appear on the right side of the screen.

The screenshot displays the EMIS Web Health Care interface. The main window shows the medication module with a list of current medications. The ExpertCare modal view is open on the right side of the screen, displaying a Medication Change Request for a patient named London Town Angus.

Current Medications:

Drug / Dosage / Quantity	Usage
Acute	
A Mefenamic acid 500mg tablets One To Be Taken Three Times A Day After Food, 28 tablet	
Repeat	
B Amlodipine 5mg tablets One To Be Taken Each Day, 28 tablet	24%
C Bisoprolol 5mg tablets One To Be Taken Each Day, 28 tablet	24%
D Indapamide 1.5mg modified-release tablets One To Be Taken Each Morning, 30 tablet	26%
E Metformin 850mg tablets One To Be Taken With Breakfast And Evening Meal, 56 tablet	24%

Medication Change Request for:

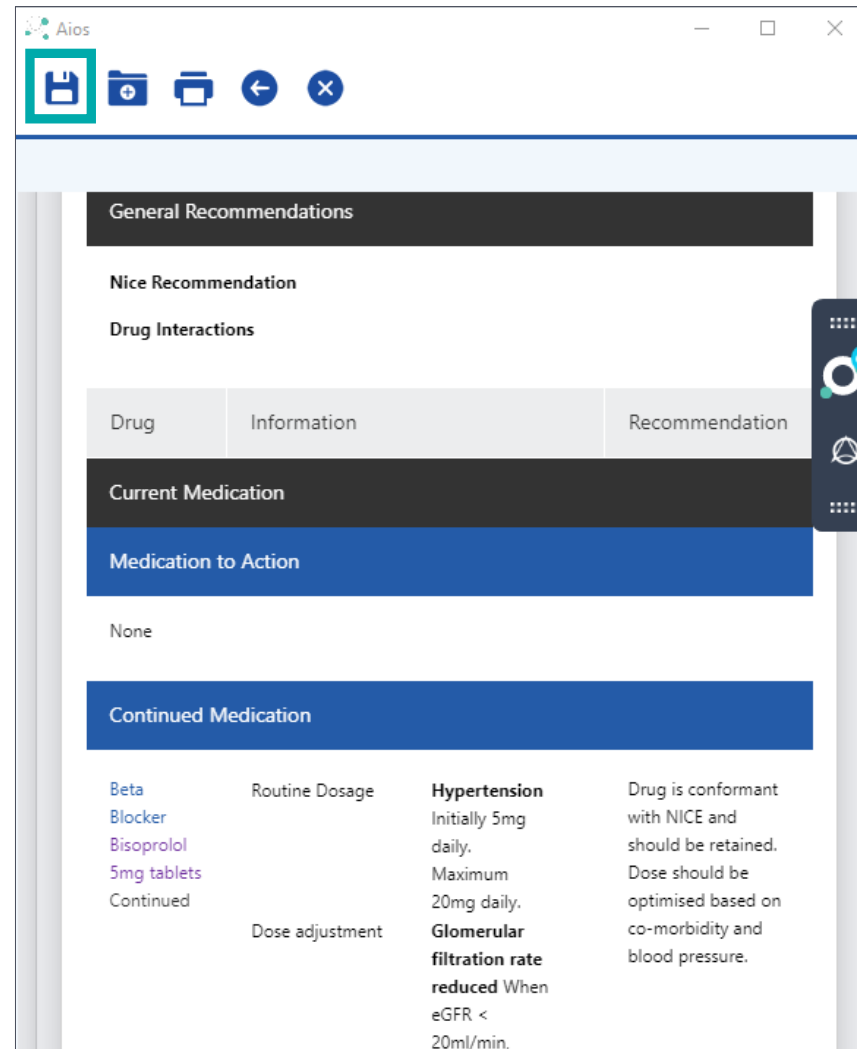
London Town
Angus

General Recommendations

- Nice Recommendation
- Drug Interactions

- The ExpertCare modal view enables the user to view a summary of the changes made to the patient’s medication during the session, while applying those changes in the medication module of the clinical system.

- Click on the “Save” icon to save the ExpertCare consultation as a pdf document to your computer.

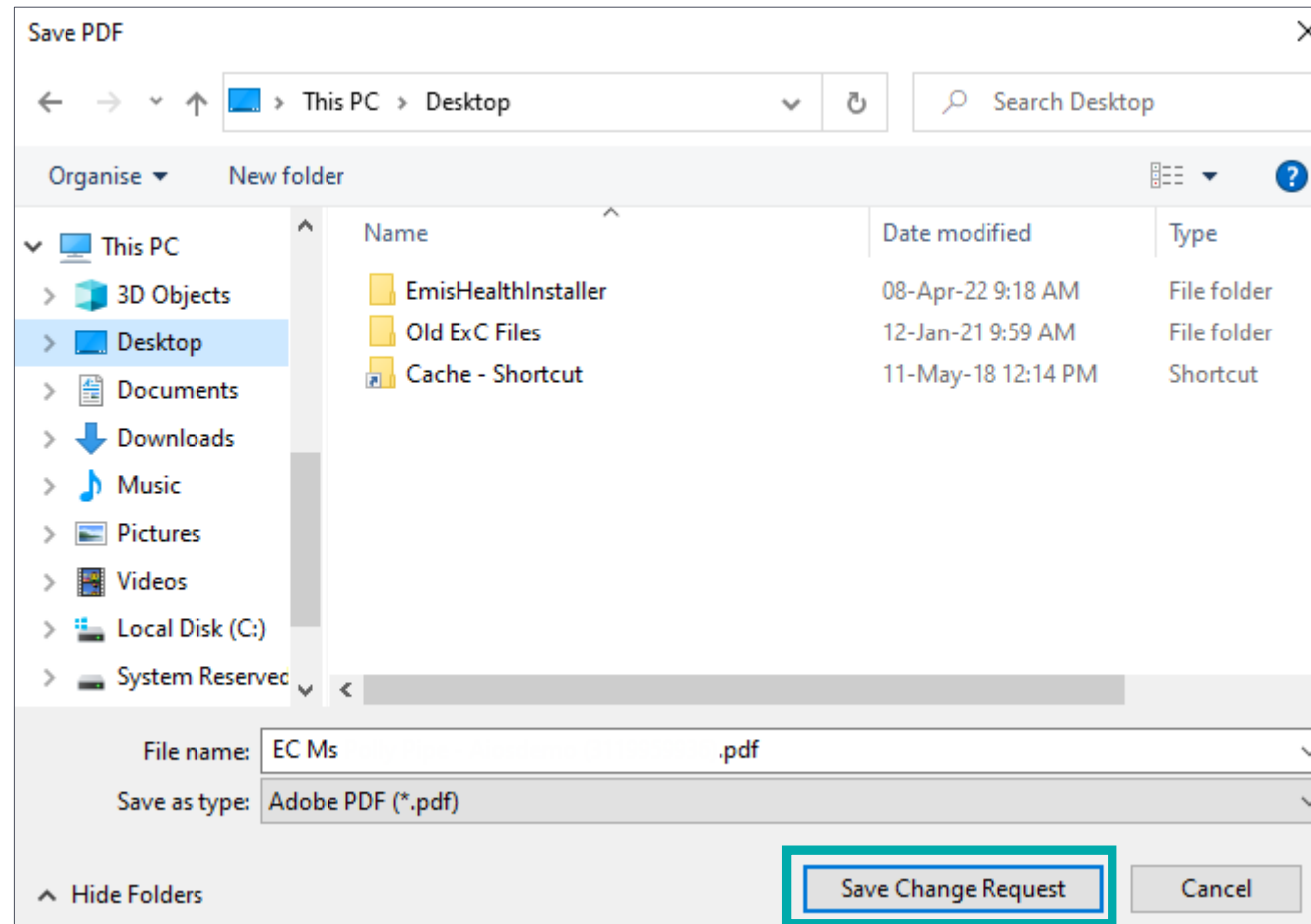


The screenshot shows the Aios software interface. The top toolbar contains several icons, with the 'Save' icon (a floppy disk) highlighted by a red box. The main content area is divided into several sections: 'General Recommendations', 'Nice Recommendation', 'Drug Interactions', 'Current Medication', 'Medication to Action', and 'Continued Medication'. The 'Medication to Action' section is currently active and displays a table with the following data:

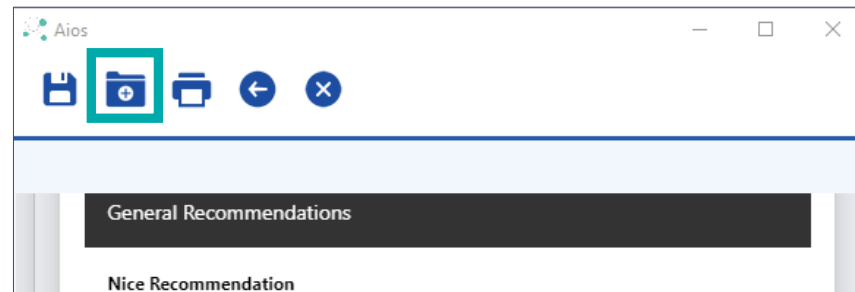
Drug	Information	Recommendation
Beta Blocker Bisoprolol 5mg tablets Continued	Routine Dosage Dose adjustment	Hypertension Initially 5mg daily. Maximum 20mg daily. Glomerular filtration rate reduced When eGFR < 20ml/min,

The 'Recommendation' column for the Beta Blocker section states: 'Drug is conformant with NICE and should be retained. Dose should be optimised based on co-morbidity and blood pressure.'

- Select the chosen location and click “Save Change Request”.



- Click on the “File” icon to save the pdf to the patient’s record in the clinical system.



- The document will automatically be saved with the SNOMED code: 473225006 – Hypertension medication review (procedure). The document can be viewed under the “Care History” or “Documents” section in EMIS.

EMIS Web Health Care System - Aios Test Practice - 28826

Summary Consultations Medication Problems Investigations **Care History** Diary **Documents** Referrals Care Plans

Add Edit Delete Add/Edit Latest Only Descriptive Text Trend Collapse All All Data Non Value Data Allergies Health Status Family History Immunisations Filters Text search Print CR Config Information Leaflets Manage fit notes

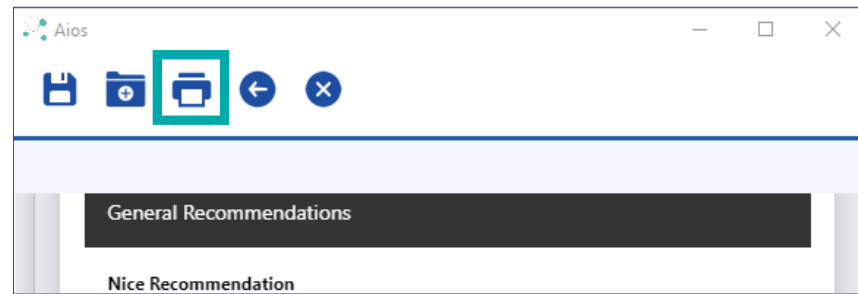
SCR - 2 GP2GP - 25 (25)

New priority Workflow Items received - GP2GP

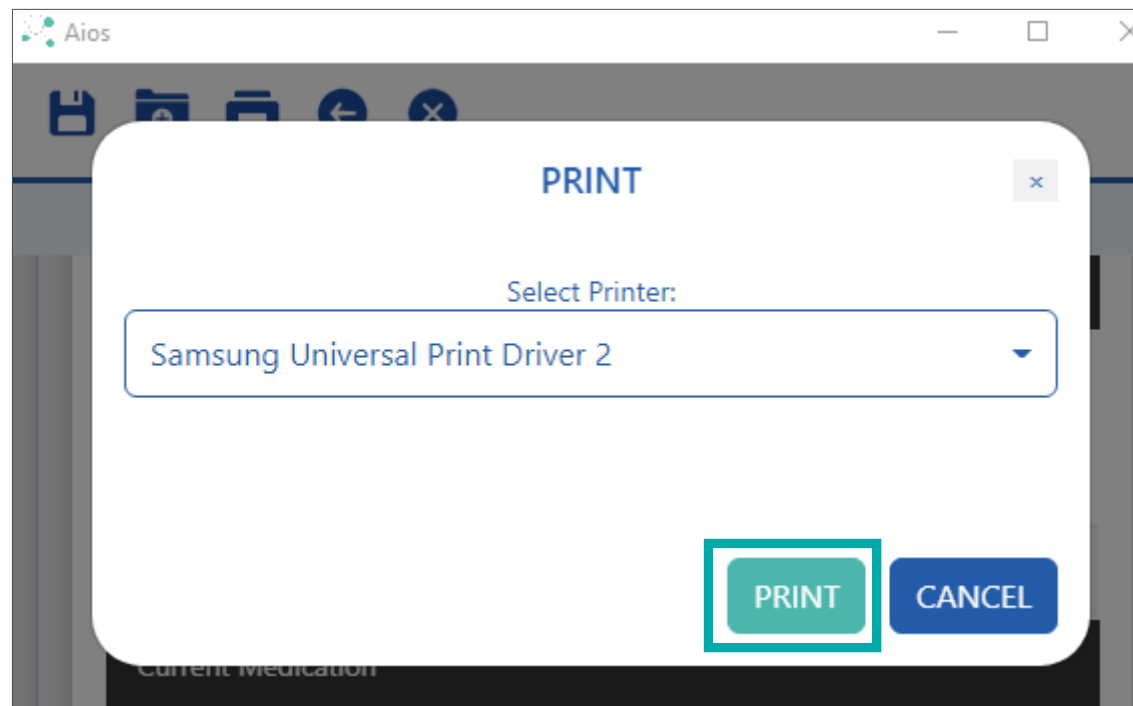
Active [Name] Born [Date] Gender **Female** NHS No. **311 995 9936**

Date	Term	Value	Context
06-Dec-2022	Hypertension medication review		Value
06-Dec-2022	Hypertension medication review	Hypertension medication review (06/Dec/2022)	Attachment

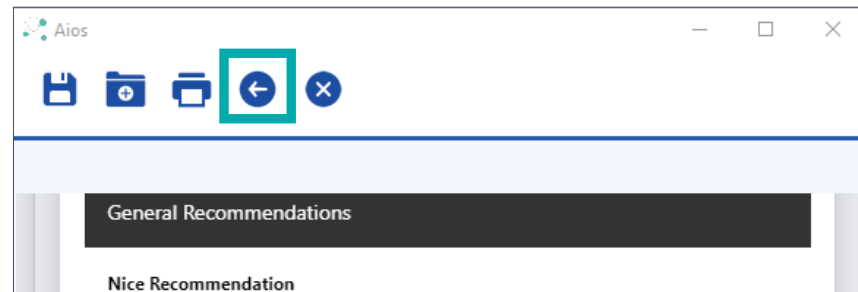
- Click on the “Print” icon to print the pdf document.



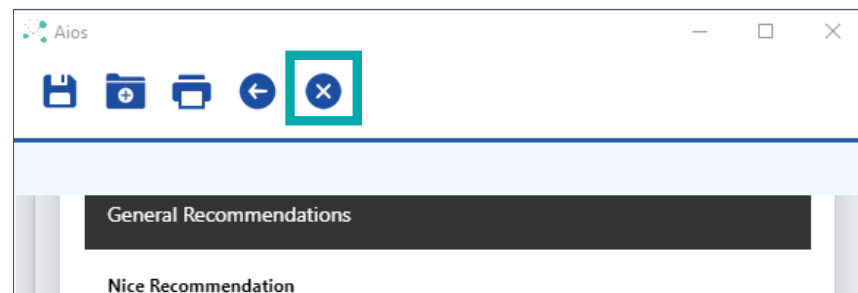
- Select the relevant printer from the drop-down menu provided and click on “Print”.



- Click on the “Back Arrow” icon to return to the “ExpertCare Prescribing Recommendations” screen.



- Click on the “Cross” icon to close the modal view and return to the “Home” screen.



- If at any point during your ExpertCare consultation you would like to hide/remove the information on the screen for confidentiality or other reasons, you can click on the “Hide” button to remove all the information on the screen. The “Hide” button can be used anytime during your ExpertCare session. ExpertCare will have to be reinitiated by pressing the ExpertCare icon on the floating toolbar.





- Please note that any drugs added during the ExpertCare session will appear highlighted in yellow in the tree view until they have been prescribed in the clinical system. If a drug is still highlighted in yellow in the tree view when the patient comes for the next consultation, it is the responsibility of the user to check the patient record to make sure it has not been prescribed, and to then select the “Not in use” option from the “Action” drop-down menu on the “Treatment Plan” screen (see section 5.1), as the patient is not taking the medication.

The screenshot displays the ExpertCare interface for a patient named Ms Polly Expertcare Pipe - Aiosdemo. The patient's DOB is 01/01/1971 and NHS No is 311 995 9936. The primary condition is HYPERTENSION, with a current BP of 147/93 (up arrow) and a target BP of 140/90. The eGFR is 40ml/min. The current medication list includes Amlodipine 5mg tablets, Bisoprolol 5mg tablets, Indapamide 1.5mg modified-release tablets, Mefenamic acid 500mg tablets, and Ramipril tablets (highlighted in yellow). The clinical details table lists relevant comorbidities, clinical codes, and last entry dates.

Relevant Comorbidity	Clinical Codes	Last Entry
Chronic kidney disease	i	01/02/2023
Diabetes mellitus	i	12/08/2022
Diabetic nephropathy	i	12/08/2022
Migraine	i	12/08/2022
Oedema	i	12/08/2022
Urinary ACR 30 or more	i	12/08/2022
CKD stage 3	i	01/02/2023
Glomerular filtration rate reduced	i	01/02/2023
Myocardial infarction more than 12 months ago	i	12/08/2022

6. My patient's blood pressure is controlled, can I still use ExpertCare?

- It is recommended that ExpertCare should still be used, even if a hypertensive patient's blood pressure is under control, to check for conformance with NICE guidelines.
- ExpertCare will determine whether the patient is on the correct medication, taking any relevant comorbidities and their associated NICE guidance into account, e.g., heart failure.
- The same process steps illustrated previously are followed. If the patient is on conformant medication and the blood pressure is normal, the user does not have to add an additional drug.
- If the patient is not on the correct medication, the drugs which are non-compliant with NICE or contraindicated will be displayed on a red background.
- You should proceed as mentioned above in section 5.4 (What to do when a drug is not recommended) by either replacing or continuing the red drug.
- ExpertCare will recommend an appropriate drug class to replace the non-recommended drug with.
- In cases where there is a better NICE compliant drug to substitute one of the patient's current drugs with, ExpertCare will indicate this.

TREATMENT PLAN		STEP 2		
<p>NICE Recommendations Urinary ACR 30 or more: NG203 recommends an ACE inhibitor or Angiotensin-II blocker in adults with hypertension and an ACR of 30mg/mmol or more (ACR category A3). Drug Interactions</p>				
Medication for Action	Information	NICE Concordance	Action	
Calcium Channel Blocker: Non rate-limiting Amlodipine tablets 27/02/2024	Routine Dosage Initially 5mg once daily. Maximum 10mg daily.	Consider substituting with Renin Angiotensin System drug. Hypertension NG136	<input type="text" value="Select"/>	
Thiazide-like Diuretics Indapamide tablets 27/02/2024	Recommendation NG136 advises a thiazide-like diuretic is selected when starting or changing a thiazide; but conventional thiazides should be retained if the blood pressure is controlled. Caution Use with caution in patients at risk of electrolyte imbalance for example nephrotic syndrome or malnutrition. Diabetes mellitus Use with caution as may cause a deterioration in glycaemic control. Monitoring Monitor electrolytes regularly especially on higher doses and in renal impairment or corticoadrenal insufficiency Routine Dosage Initially 1.5mg once daily. Maximum 2.5mg daily.	Consider substituting with Renin Angiotensin System drug. Hypertension NG136	<input type="text" value="Select"/>	

- Please complete the actions for all medications, even when the patient’s blood pressure is normal and they are on the correct medication, as this helps for reporting purposes.
- Select the “End Consultation” button when finished and navigate through the modal screen as mentioned in 5.9.

7. ExpertCare “Help” Pop-ups

The information from this user guide has been embedded into the ExpertCare interface for your convenience. On each ExpertCare page, you will find a “?” on the right-hand side at the top of the screen. Should you have any trouble navigating the program, click on the “?”. It will display a window containing helpful information.

ExpertCare

Search patients, forms and more

UAT Feedback

Active patient in CMS: Ms Polly Expertcare Pipe - Aiosdemo DOB: 01/01/1971 NHS No: 311 995 9936

Primary Condition

Patient Status

Current Medication

Hypertension

► Clinical Details

► Treatment Plan

► NICE Recommendations

Help Info

HYPERTENSION

BP: 147/93 ↑ Target BP: 140/90 eGFR: 40ml/min ⌛ Potassium: 6mmol/l

CLINICAL DETAILS

Relevant Comorbidity	Clinical Codes	Last Entry	Exclude
Chronic kidney disease	ⓘ	01/02/2023	<input type="checkbox"/>
Diabetes mellitus	ⓘ	12/08/2022	<input type="checkbox"/>
Diabetic nephropathy	ⓘ	12/08/2022	<input type="checkbox"/>
Migraine	ⓘ	12/08/2022	<input type="checkbox"/>
Oedema	ⓘ	12/08/2022	<input type="checkbox"/>
Urinary ACR 30 or more	ⓘ	12/08/2022	<input type="checkbox"/>
CKD stage 3	ⓘ	01/02/2023	<input type="checkbox"/>
Glomerular filtration rate reduced	ⓘ	01/02/2023	<input type="checkbox"/>
Myocardial infarction more than 12 months ago	ⓘ	12/08/2022	<input type="checkbox"/>
Potassium high normal	ⓘ	27/02/2024	<input type="checkbox"/>

8. Support

Should you experience any problems, please get in touch with our support desk and one of the members of our team will be more than happy to assist you.



0800 028 0004 (option 1)



support-uk@dxs-systems.com



dxs-systems.co.uk

9. Training

If you have any additional questions, please consult our FAQ document, or watch any of our training videos which is available on the ExpertCare Training website.



0800 028 0004 (option 2)



training@dxs-systems.co.uk



<https://training.expertcarerx.co.uk/>