

# NWL REWIND Type 2 Diabetes Pathways

(REWIND: **RE**ducing **W**eight with **IN**tensive **D**ietary support)

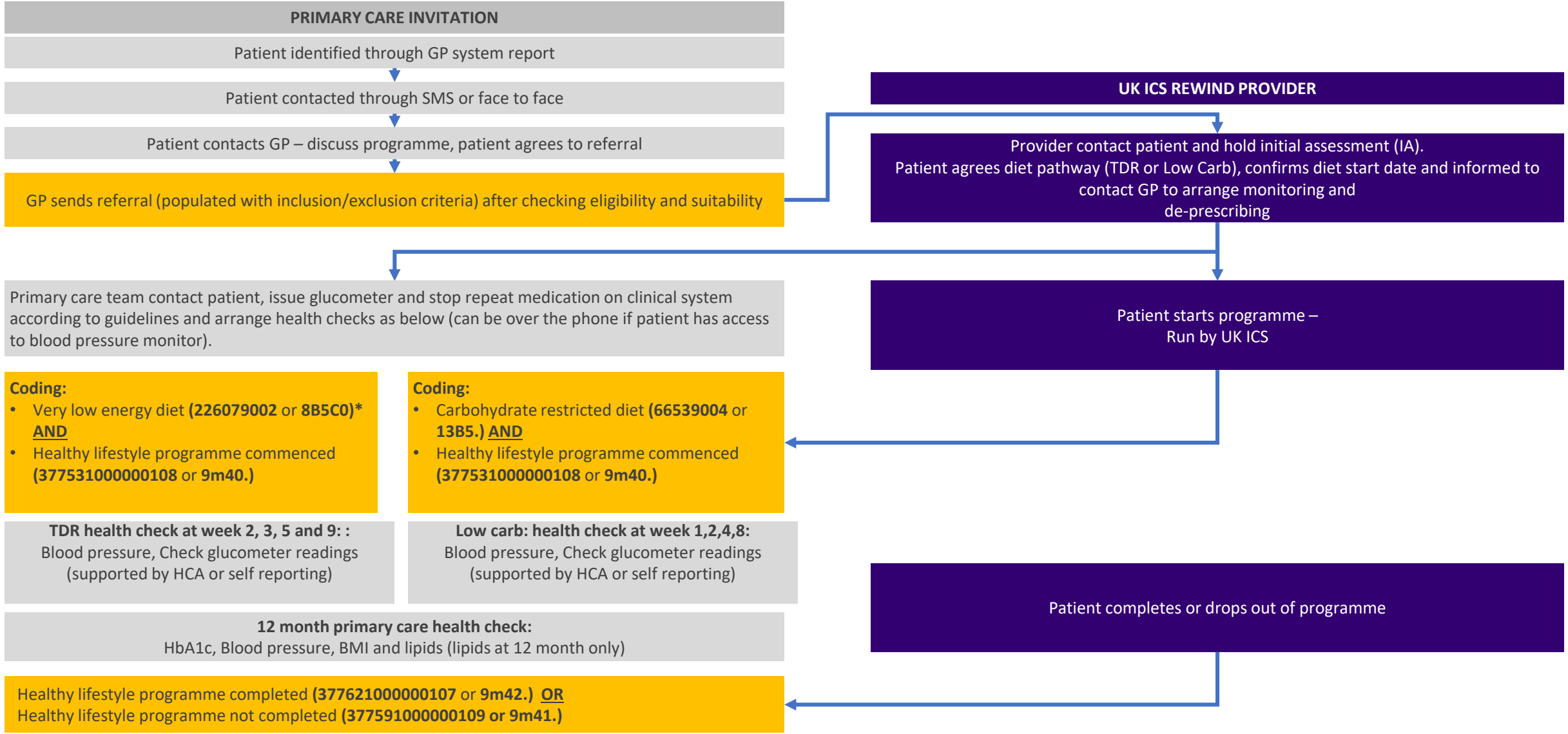
Inclusion, Exclusion Criteria, Coding, Medication Protocols

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# NWL REWIND Type 2 Diabetes Simplified Pathway

This slide is a one page summary of the next two pages

\* Codes used are SNOMED (SystemOne) and READv2 (EMIS)



# NWL REWIND Type 2 Diabetes Detailed Referral Pathway

## PRIMARY CARE INVITATION

### Inclusion criteria:

- Age 18 or over and registered with NWL GP;
- Diabetes duration < 12 years (in phase 1);
- HbA1c within the last 12 months:
  - HbA1c 43-87 mmol/mol **with** diabetes medication;
  - HbA1c 48-87 mmol/mol **without** diabetes medication;
  - Latest HbA1c 88-108mmol/mol if:
    - patient is within 6 months of diagnosis **OR**
    - retinal screening within past 6/12 with no evidence of untreated proliferative or pre-proliferative retinopathy and potential impact discussed with service user. Retinal screening 6m after programme start if HbA1c improves > 25mmol/mol)

### Exclusions for Both Pathways:

- Not attended diabetes review in last 12 months
- HbA1c > 108mmol/mol;
- Current insulin use (at least in phase 1);
- Pregnant or planning to become pregnant during next 6 months. Defer those breastfeeding until lactation ceases;
- Severe renal impairment (eGFR <30);
- Health professional assessment that the person is unlikely to understand or meet the demands of the treatment programme and/or monitoring requirements (e.g. active psychotic illness or severe depression requiring psychiatric review);
- Unwilling to provide blood samples;
- Unwilling to allow sharing of clinical information with WSIC

Send REWIND **Invitation SMS** or offer at diabetes appointment

Patient contacts GP

GP/HCP sends referral (populated with inclusion/exclusion criteria) after checking eligibility and suitability

**Coding for referral:** Referral to healthy lifestyle programme (892281000000101 or 8Hlu.)

## UK ICS REWIND PROVIDER

Patient attends provider initial assessment and agrees to start programme

Patient encouraged to follow Total Diet Replacement (TDR) pathway, but if unwilling or meets exclusion criteria, then offered Low Carb pathway

### Specific Exclusions for TDR:

- BMI of under 27kg/m<sup>2</sup> (adjusted to 25kg/m<sup>2</sup> in people of South Asian and Chinese origin);
- Significant physical co-morbidities:
  - active cancer other than skin cancer treated with curative intent by local treatment only, or people taking hormonal or other long term secondary prevention;
  - heart attack or stroke in last 6 months (defined as New York Heart Association grade 3 or 4);
  - severe heart failure;
  - active liver disease (not including NAFLD);
- Active substance use disorder/eating disorder;
- Porphyria;
- Known untreated proliferative or pre-proliferative retinopathy if HbA1c 88-108mmol/mol;
- Current treatment with anti-obesity drugs (would need to stop);
- Recent weight loss > 5% body weight / on current weight management programme / had or awaiting bariatric surgery (unless willing to come off waiting list)

### Specific Exclusions for Low Carb Diet (<130g/day):

- Concurrent SGLT2 inhibitor usage (**SGLT-2 inhibitors will need to be stopped in view of potential risk of ketoacidosis whilst on intensive carb reduction programme**);

# NWL REWIND Type 2 Diabetes Detailed Management Pathway

## PRIMARY CARE SUPPORT

Prescribing management and monitoring support as needed, costed at £58.67 per patient starting the programme

GP/HCP notified of start date

### TOTAL DIET REPLACEMENT

Primary care team contact patient, issue glucometer and stop/reduce repeat **diabetes and BP medication** on clinical system according to guidelines, arrange health checks at weeks 2,3, 5, 9 and at month 3.

#### Coding:

- Very low energy diet
- **226079002 or 8B5C0) AND**
- Healthy lifestyle programme commenced (**377531000000108 or 9m40.**)

### LOW CARB DIET

Primary care team contact patient, issue glucometer and stop/reduce repeat **diabetes** medication on clinical system according to guidelines, arrange health checks at weeks 1,2, 4, 8 and at month 3.

#### Coding:

- Carbohydrate restricted diet (**66539004 or 13B5.) AND**
- Healthy lifestyle programme commenced (**377531000000108 or 9m40.**)

**Primary care follow up (at weeks mentioned above – note different for TDR and Low Carb):**

Blood pressure, Check glucometer readings (supported by HCA or self reporting)

**3 and 6 month primary care follow up:**

HbA1c, Blood pressure, Body mass index

**12 month primary care follow up:**

HbA1c, Blood pressure, Lipids, Body mass index

Healthy lifestyle programme completed (**377621000000107 / 9m42.) OR**

Healthy lifestyle programme not completed (**377591000000109 / 9m41.)**

## UK ICS REWIND PROVIDER

Patient attends IA, agrees start date and informed to make de-prescribing appointment with GP

12 month intensive lifestyle programme

### TOTAL DIET REPLACEMENT

### LOW CARB DIET

Weeks 1-12

Primary care notified if patient drops out or does not lose weight in order to restart medication.

Patient is communicated to by UKICS as a reminder to notify GP/relevant HCP of this. UKICS will send GP practice quarterly reports with list of patients at different stages.

Weeks 13-24

Weeks 25-52

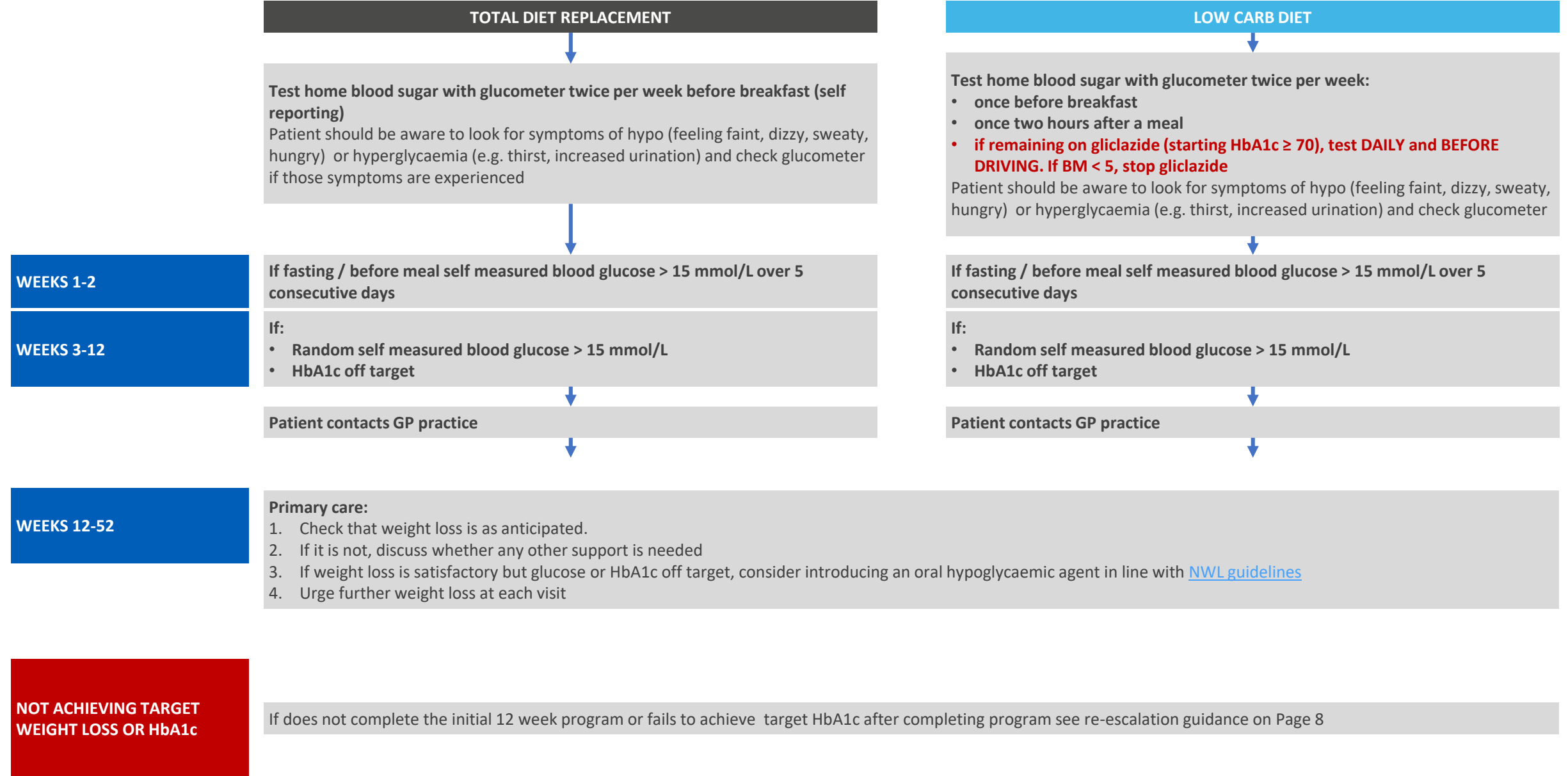
# Total Diet Replacement: Primary Care Prescribing Protocol

<b>BASELINE</b>	<b>ELIGIBILITY</b>	Check inclusion / exclusion criteria
	<b>BASELINE METRICS</b>	HbA1c, BP and BMI within 3 months
	<b>GLUCOMETER</b>	Issue glucometer with 50 strips. Ensure that patient knows how to self-test and when to seek help
<b>DAY 1</b>	<b>DIABETES MEDICATIONS</b>	<b>People on 1-2 glucose-lowering agents</b> should <b>stop</b> these agents on the first day of TDR (Note TDR only group sessions begin at week 2)
		<b>People on ≥ 3 agents</b> should stay on <b>metformin only</b> (or, if not taking metformin as it is contraindicated / not tolerated, stay on an oral agent which is safe with TDR, e.g. DPP4 inhibitor or pioglitazone) and stop the remaining glucose-lowering agents on the first day of TDR
		<b>Sulfonylureas, meglitinides, SGLT2 inhibitors</b> are not safe with TDR and <b>MUST be stopped on the first day of TDR</b>
	<b>ANTIHYPERTENSIVES</b>	<p>IF BP &gt; <b>140/80</b>, CONTINUE Antihypertensive medication</p> <p>IF BP ≤ <b>140/80</b>, STOP <b>ONE</b> Antihypertensive medication.</p> <p>Order for STOPPING medication:</p> <p><b>Alpha blocker</b> (if prescribed for hypertension)</p> <p><b>Beta blocker</b> (continue if used for heart failure/post MI)</p> <p><b>Amiloride / Spironolactone</b> (continue spironolactone if used for heart failure)</p> <p><b>Thiazide or thiazide-like diuretic</b> or <b>Calcium channel blocker</b></p> <p><b>ACEI or ARB</b> (if hypertension only), consider only <b>REDUCING</b> dose if heart failure, previous MI or raised ACR</p>
<b>LIPID MEDICATIONS</b>	CONTINUE Fibrate, Statin, Ezetimibe	
<b>WEEK 1 &amp; 2</b>	<b>CHECK BP, Review glucometer readings</b>	<p>If <b>systolic BP &gt; 165mmHg</b> on repeated measurement RESTART one drug (see below)</p> <p>If significant osmotic symptoms (thirst, polyuria) or random capillary glucose is <b>&gt; 15 mmol/L</b>, check that weight loss is as anticipated. If it is not, discuss whether any other help needed with diet.</p> <p>If weight loss is satisfactory but blood glucose is still high, consider introducing an oral hypoglycaemic agent.</p> <p>Start at the lowest dose and increase gradually. If blood glucose remains high, titrate or add further agents</p>
<b>MONTHS 1 &amp; 2</b>	<b>CHECK BP, Review glucometer readings</b>	TITRATE antihypertensive medication to achieve target BP of ≤ <b>130-140/80</b>
<b>MONTH 3</b>	<b>CHECK BP, weight, HbA1c; Review glucometer readings</b>	TITRATE antihypertensive medication to achieve target BP of ≤ <b>130-140/80</b>
<b>MONTH 6</b>	<b>CHECK BP, weight, HbA1c; Review glucometer readings</b>	TITRATE antihypertensive medication to achieve target BP of ≤ <b>130-140/80</b>
<b>MONTH 12</b>	<b>CHECK BP, weight, HbA1c; Review glucometer readings</b>	TITRATE antihypertensive medication to achieve target BP of ≤ <b>130-140/80</b>
<b>HYPOGLYCAEMIC MEDICATION TITRATION</b> If HbA1c above target or random capillary glucose consistently over 15mmol/L, restart one diabetes medication in line with <a href="#">NWL guidelines</a>		<b>ANTIHYPERTENSIVE MEDICATION TITRATION</b> If Systolic BP > 165mmHg in weeks 1-2 or > 130-140mmHg thereafter, restart antihypertensive in line with NICE and <a href="#">NWL guidelines</a>

# Low Carb Diet: Primary Care Prescribing Protocol

BASELINE	ELIGIBILITY	Check inclusion / exclusion criteria
	BASELINE METRICS	HbA1c, BP and BMI within 3 months
	GLUCOMETER	Issue low cost glucometer with 50 strips as acute. Ensure that patient knows how to self-test and when to seek help
DAY 1	DIABETES MEDICATIONS	STOP <b>Glitazone, SGLT-2 inhibitor</b> (risk of ketoacidosis with SGLT-2) (Note: Low Carb group sessions begin in week 1)
		STOP <b>Sulphonylurea or Meglitinide</b> if HbA1c < 70. <b>Monitor BMs more frequently</b>
		CONTINUE <b>Metformin</b> (discuss merits with patient). <b>Stop when target HbA1c achieved.</b>
		CONTINUE <b>DPP-4 inhibitor or GLP-1 UNTIL TARGET HbA1c REACHED. Stop when achieved.</b> (consider changing GLP-1 inhibitor to semaglutide - cost effectiveness)
DAY 1	ANTIHYPERTENSIVES	IF <b>BP &gt; 120/80</b> , CONTINUE Antihypertensive medication
		IF <b>BP ≤ 120/80</b> , STOP <b>ONE</b> Antihypertensive medication: Order for STOPPING medication: <b>Alpha blocker</b> (if prescribed for hypertension) <b>Beta blocker</b> (continue if used for heart failure/post MI) <b>Amiloride / Spironolactone</b> (continue spironolactone if used for heart failure) <b>Thiazide or thiazide-like diuretic or Calcium channel blocker</b> <b>ACEI or ARB</b> (if hypertension only), <b>consider only REDUCING dose if heart failure, previous MI or raised ACR</b>
		LIPID MEDICATIONS
WEEK 1 & 2	CHECK BP, Review glucometer readings	<p>If <b>systolic BP &gt; 165mmHg</b> on repeated measurement RESTART one drug (see below)</p> <p>If significant osmotic symptoms (thirst, polyuria) or random capillary glucose is <b>&gt; 15 mmol/L</b>, check that weight loss is as anticipated. If it is not, discuss whether any other help needed with diet.</p> <p>If weight loss is satisfactory but blood glucose is still high, consider introducing an oral hypoglycaemic agent.</p> <p>Start at the lowest dose and increase gradually. If blood glucose remains high, add further agents</p>
MONTHS 1 & 2	CHECK BP, Review glucometer readings	TITRATE antihypertensive medication to achieve target BP of ≤ <b>130-140/80</b>
MONTH 3	CHECK BP, weight, HbA1c; Review glucometer readings	TITRATE antihypertensive medication to achieve target BP of ≤ <b>130-140/80</b>
MONTH 6	CHECK BP, weight, HbA1c; Review glucometer readings	TITRATE antihypertensive medication to achieve target BP of ≤ <b>130-140/80</b>
MONTH 12	CHECK BP, weight, HbA1c; Review glucometer readings	TITRATE antihypertensive medication to achieve target BP of ≤ <b>130-140/80</b>
HYPOGLYCAEMIC MEDICATION TITRATION If HbA1c above target or random capillary glucose consistently over 15mmol/L, restart one diabetes medication in line with <a href="#">NWL guidelines</a>		ANTIHYPERTENSIVE MEDICATION TITRATION If Systolic BP > 165mmHg in weeks 1-2 or > 130-140mmHg thereafter, restart antihypertensive in line with NICE and <a href="#">NWL guidelines</a>

# Monitoring of Blood Glucose Levels - If diet control on non glucose lowering medication with HbA1c <53 mmol/mol no glucose monitoring required between weeks 1-12



# Re-Escalation of Diabetes Therapy

