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 (SystmOne) and READv2 (EMIS)

PRIMARY CARE INVITATION

Patient identified through GP system report

Patient contacted through SMS or face to face

Patient contacts GP – discuss programme, patient agrees to referral

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

UK ICS REWIND PROVIDER

Provider contact patient and hold initial assessment (IA).
Patient agrees diet pathway (TDR or Low Carb), confirms diet start date and informed to contact GP to arrange monitoring and de-prescribing

Primary care team contact patient, issue glucometer and stop repeat medication on clinical system according to guidelines, arrange reviews at weeks 1 & 2 and at 1,2 & 3 months

Patient starts programme –
Run by UK ICS

Coding:

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

Coding:

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

1, 2, 4 and 8 week primary care follow up:
Blood pressure, Check glucometer readings
(supported by HCA or self reporting)

Patient completes or drops out of programme

12 month primary care follow up:
HbA1c, Blood pressure, Lipids, Body mass index

Healthy lifestyle programme completed **(377621000000107** or **9m42.)** **OR**
Healthy lifestyle programme not completed **(377591000000109 or 9m41.)**

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:

- 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/m² (adjusted to 25kg/m² 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;
  - 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 87-108mmol/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);**

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NWL REWIND Type 2 Diabetes Detailed Management Pathway

PRIMARY CARE SUPPORT

Prescribing management and monitoring support as needed, costed at £58.67 per patient on DPP-4, SGLT-2 or GLP-1 medication who start the programme

UK ICS REWIND PROVIDER

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

GP/HCP notified of start date

TOTAL DIET REPLACEMENT	LOW CARB DIET
Primary care team contact patient, issue glucometer and stop repeat **diabetes** (except Metformin) **and BP medication** on clinical system according to guidelines, arrange reviews at weeks 1 & 2 and at 1, 2 & 3 months	Primary care team contact patient, issue glucometer and stop repeat **diabetes** medication (except Metformin) on clinical system according to guidelines, arrange reviews at weeks 1 & 2 and at 1, 2 & 3 months
Coding: • Very low energy diet • **226079002** or **8B5C0) AND** • Healthy lifestyle programme commenced **(377531000000108** or **9m40.)**	**Coding:** • Carbohydrate restricted diet **(66539004** or **13B5.) AND** • Healthy lifestyle programme commenced **(377531000000108** or **9m40.)**

1, 2, 4 and 8 week primary care follow up: 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.)**

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

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Total Diet Replacement: Primary Care Prescribing Protocol

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

HYPOGLYCAEMIC MEDICATION TITRATION
If HbA1c above target or random capillary glucose consistently over 15mmol/L, restart one diabetes medication in line with NWL guidelines on Hounslow CCG Website.

ANTIHYPERTENSIVE MEDICATION TITRATION
If Systolic BP > 165mmHg in weeks 1-2 or > 130-140mmHg thereafter, restart antihypertensive in line with NICE and NWL guidelines on Hounslow CCG Website.

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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 **Glitazone, SGLT-2 inhibitor** (risk of ketoacidosis with SGLT-2)
		STOP **Sulphonylurea** or **Meglitinide** if HbA1c < 70. **Monitor BMs more frequently**
		CONTINUE **Metformin** (discuss merits with patient). **Stop when target HbA1c achieved**.
		CONTINUE **DPP-4 inhibitor** or **GLP-1 UNTIL TARGET HbA1c REACHED. Stop when achieved. (**consider changing GLP-1 inhibior to semaglutide - cost effectiveness)
	ANTIHYPERTENSIVES	IF **BP > 120/80**, CONTINUE Antihypertensive medication
		IF **BP ≤ 120/80**, STOP **ONE** Antihypertensive medication: Order for STOPPING medication: **Alpha blocker** (if prescribed for hypertension) **Beta blocker** (continue if used for heart failure/post MI) **Amiloride / Spironolactone** (continue spironolactone if used for heart failure) **Thiazide or thiazide-like diuretic** or **Calcium channel blocker** **ACEI** or **ARB** (if hypertension only), consider only REDUCING dose if heart failure, previous MI or raised ACR
	LIPID MEDICATIONS	CONTINUE **Fibrate, Statin, Ezetimibe**
WEEK 1 & 2	**CHECK BP, Review glucometer readings**	If **systolic BP > 165mmHg** on repeated measurement RESTART one drug (see below) If significant osmotic symptoms (thirst, polyuria) or random capillary glucose is **> 15 mmol/L**, check that weight loss is as anticipated. If it is not, discuss whether any other help needed with diet. If weight loss is satisfactory but blood glucose is still high, consider introducing an oral hypoglycaemic agent. Start at the lowest dose and increase gradually. If blood glucose remains high, add further agents
MONTHS 1 & 2	**CHECK BP, Review glucometer readings**	TITRATE antihypertensive medication to achieve target BP of **≤ 130-140/80**
MONTH 3	**CHECK BP, weight, HbA1c; Review glucometer readings**	TITRATE antihypertensive medication to achieve target BP of **≤ 130-140/80**
MONTH 6	**CHECK BP, weight, HbA1c; Review glucometer readings**	TITRATE antihypertensive medication to achieve target BP of **≤ 130-140/80**
MONTH 12	**CHECK BP, weight, HbA1c; Review glucometer readings**	TITRATE antihypertensive medication to achieve target BP of **≤ 130-140/80**

HYPOGLYCAEMIC MEDICATION TITRATION
If HbA1c above target or random capillary glucose consistently over 15mmol/L, restart one diabetes medication in line with NWL guidelines on Hounslow CCG Website.

ANTIHYPERTENSIVE MEDICATION TITRATION
If Systolic BP > 165mmHg in weeks 1-2 or > 130-140mmHg thereafter, restart antihypertensive in line with NICE and NWL guidelines on Hounslow CCG Website.

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Monitoring of Blood Glucose Levels

	TOTAL DIET REPLACEMENT	LOW CARB DIET
	Test home blood sugar with glucometer twice per week before breakfast (self reporting) Patient should be aware to look for symptoms of hypo (feeling faint, dizzy, sweaty, hungry) or hyperglycaemia (e.g. thirst, increased urination) and check glucometer if those symptoms are experienced	**Test home blood sugar with glucometer twice per week:** • **once before breakfast** • **once two hours after a meal** • **if remaining on gliclazide (starting HbA1c ≥ 70), test DAILY and BEFORE DRIVING. If BM < 5, stop gliclazide** Patient should be aware to look for symptoms of hypo (feeling faint, dizzy, sweaty, hungry) or hyperglycaemia (e.g. thirst, increased urination) and check glucometer
WEEKS 1-2	**If fasting / before meal self measured blood glucose > 15 mmol/L over 5 consecutive days**	**If fasting / before meal self measured blood glucose > 15 mmol/L over 5 consecutive days**
WEEKS 3-52	**If:** • **Random self measured blood glucose > 15 mmol/L** • **HbA1c off target**	**If:** • **Random self measured blood glucose > 15 mmol/L** • **HbA1c off target**
	Patient contacts GP practice	**Patient contacts GP practice**

Primary care:

1. Check that weight loss is as anticipated.
2. If it is not, discuss whether any other support is needed
3. If weight loss is satisfactory but glucose or HbA1c off target, consider introducing an oral hypoglycaemic agent in line with NWL guidelines
4. Start at the lowest dose and increase gradually
5. Subsequently, if HbA1c off target, add further agents
6. Urge further weight loss at each visit

NOT ACHIEVING TARGET WEIGHT LOSS OR HbA1c

Onwards referral:

If patient drops out, does not achieve weight loss target (10-15kg) or has significant (e.g. mental health) complexity which is interfering with weight loss, consider onwards referral to:

- Tier 3 weight management services e.g. consideration of bariatric surgery
- Conventional structured education

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