DEAL: Diabetes Education through Adult Learning

(A high quality solution to meet the district's patients' new and ongoing educational needs)

Curriculum Documents

Version 5

Kevin Hardy & Sarah O'Brien

April 2011

Review March 2013

Introduction

Historically the population served by the local health authority and the acute trust included patients from predominantly St Helens (59%) and Knowsley (34%), with smaller numbers of patients from Liverpool (2%), Halton (4%) and elsewhere (1%).

With the dissolution of the local health authority into PCTs, there has been a divergence of policy between St Helens & Knowsley PCTs, with Knowsley increasingly working with University Hospitals Aintree in developing its policy based around GPSIs and a community-run, patient education programme for mixed chronic diseases.

Like many UK health districts, St Helens PCT has retained its traditional strong links with the acute trust and has not to date pursued a GPSI-oriented approach to diabetes care delivery. This proposal assumes that the evolving difference of emphasis between the two PCTs will be maintained and this proposal is being developed to serve people with diabetes from St Helens. It could, however, be adapted to meet the needs of patients from Knowsley and elsewhere if those PCTs decided to adopt the St Helens model in the future.

Recently, St Helens and Halton PCTs have merged. Parts of Halton have used the X-pert Programme for aspects of diabetes education in some of its patients, but access to the programme has been extremely problematic (9-10 month wait) and at best this programme only serves a relatively small proportion of the total diabetes educational needs of its patients.

DEAL: A SUITE OF COMPLIMENTARY EDUCATIONAL OPPORTUNITIES

National guidance is very clear that future diabetes patient education must be "*a planned and graded programme that is comprehensive in scope, flexible in content, responsive to an individual's clinical and psychological needs and adaptable to his or her educational and cultural background*" (NICE).

Locally, diabetes patient education must therefore embrace the needs of patients ranging from the very elderly to the very young. It must be able to provide for those with diet-treated Type 2 diabetes and potentially modest educational aspirations and for those with Type 1 disease desiring intensive insulin regimens (such as insulin pump therapy); it must be sufficiently flexible to be able deal with the newly diagnosed and those requiring an 'educational top-up' and it must be able to deal with people from diverse educational and cultural backgrounds.

It is extremely unlikely that a 'one-size-fits-all' programme would be able to meet such diverse educational needs well and it must be recognised that existing "off the shelf" solutions (DAFNE, DESMOND & Xpert) address specific niche indications and that none of these programmes in isolation is sufficiently comprehensive to meet the needs of the local population. The Hospital Specialist Diabetes Team therefore proposes to offer a suite of complementary educational opportunities that collectively meet the diabetes educational needs of a district population.

DEAL comprises:

BEND1: **Basic E**ducation for **N**ewly **D**iagnosed T**1**DM
BEND2: **Basic E**ducation for **N**ewly **D**iagnosed T**2**DM

FETCH1: **F**urther **E**ducation & **T**raining for **C**ontinuing **H**ealth in T**1**DM
FETCH2: **F**urther **E**ducation & **T**raining for **C**ontinuing **H**ealth in T**2**DM

ICE: **I**nsulin-**C**arbohydrate-**E**ducation for intensive management of T1DM
FLEX**: Fl**exible **E**ducation for e**X**tra needs
DIME: Diabetes Insulin Management Education
PACE: **P**umps **A**nd **C**arbohydrate **E**ducation

DEAL: basic principles

All of the programmes reflect principles of adult learning with emphasis on constructive alignment of content, learning outcomes and assessments and are provided by appropriately trained (diabetes and education) members of the multidisciplinary team. Sessions are small-group work, except FLEX, which is one-to-one to cater for individuals with special needs. The suite ensures that education (new and ongoing) is available to and tailored to the broadest range of local people, taking account of culture, ethnicity, disability and geography.

Each programme has a structured curriculum, with clearly defined (and agreed) learning outcomes, underpinned by a philosophy of supported self-management. They are learner-centred. Each programme is theory-driven and evidence-based and uses a variety of complementary teaching media and supporting materials. The programmes are designed to evolve as a result of new evidence, user feedback and programme evaluation.

All programmes will be internally and externally (peer-review) quality assured to ensure that they deliver effectively the right message to the right people at the right time and in the right way. Process and outcome measures will be audited regularly to ensure a high quality effective programme. These measures will include: quality of life, satisfaction, patient experience, assessment of self-management skills and where appropriate biomedical measures such as HbA1c. There will be clear evidence of user-involvement in the design and monitoring of the programme.

DEAL: Philosophy of Learning

The new programme is underpinned by a social constructivist model of learning, exemplified by the following features:

- Learning is experiential. It builds on both previous and current experience, so real tasks are used within the learning opportunities wherever possible.
- Learning is active. Didactic teaching is minimised. An aim of the programme is that patients acquire new knowledge relevant to *their* management of *their* diabetes, but the emphasis is on *understanding* and the *practical application* of this knowledge in day-to-day life.
- Learning is applied. Early application of knowledge to real life problems considered critical.
- Learning is reflective. Assessment strategies emphasise the importance of reflection.
- Learning is collaborative. Participants are actively encouraged to work together to solve problems and to make use of the facilitator. The aim is to encourage participants to make best use of external resources such as the Specialist Team, Diabetes UK and primary care services in the future management of their condition.

DEAL: Patient Educator Competencies

Specialist Diabetes Team Educators will have an appropriate understanding of diabetes and education theory, all staff leading an education programme will have completed a 'Train the Trainer' course as a minimum (as per the DOH guidance this will include a theoretical base for education, underlying philosophy of diabetes patient education, observation of a full programme) and they will have ongoing assessment to ensure that they remain competent to deliver the programme (both in terms of adequate educational expertise and diabetes expertise). There will be a yearly update on education theory and each educator must lead a minimum of 4 programmes each year to maintain their competency. Individuals running programmes will be responsible for maintaining internal quality assurance procedures as outlined below and for completing any personal development requirements identified as a part of internal quality assurance or through annual appraisal.

Educators will work to ensure that they meet criteria defined in the emerging knowledge and skills framework, under development by the Skills for Health team for the National Diabetes Support Team.

DEAL: Quality Assurance (QA)

Quality assurance should have clear, written and monitorable standards and should be regularly reviewed and updated[5] The NDST identified 3 components for QA; that it should include educator training, QA tools should be based on the programme and identify a set of observations of behaviour and that an internal and external process for assessing delivering should be established.

The process for QA for DEAL will have 3 components as outlined below:

1. **Trained Educators**
   - Educators will undertake an initial 2 day training programme and observe a full course
   - After each course educators will complete a reflective self-assessment tool (based on Diabetes Education Network tool but adapted to fit DEAL) and these will be kept in an 'Education Quality File' in the Diabetes Centre
   - Yearly educators will be peer reviewed by other educators and a form completed (based on Diabetes Education Network form) and kept in quality file
   - Yearly there will be an education update for educators
   - Each educator must complete a minimum of 4 courses per year and keep a record of courses delivered
   - There will be quarterly education meetings in the department to review the curriculum, educator training issues, new developments in diabetes education etc.

2. **On-going internal QA**

   - Educators trained and monitored as identified above
   - Three year rolling programme of audit for DEAL with annual audit of a component, so that one year BEND 2 is audited, the next BEND 1, the next ICE and so on and then repeat. The audit will include quality of life and satisfaction (national tools) questionnaires at 0, 6, 12 and 52 weeks and for some courses like ICE may also include biomedical measures.
   - Yearly peer review and keep record in file, to ensure courses are being delivered as per curriculum
   - Yearly review of Education Quality File to ensure self reflection forms have been completed, review education meeting minutes and any other evidence of ongoing personal development and training by educators
   - Yearly 'focus group' discussion with a sample of patients who have completed a programme to ascertain their experiences and suggestions for change

3. **External QA**

- Every 3 years an 'Educator' from another centre will come and audit our internal QA processes and observe sessions of a programme to ensure the curriculum is being delivered.
- Review Education Quality File to ensure internal QA process is being followed.
- A patient from our user group will also come and review the QA process and observe a course.

Audit

Each education programme in DEAL will be regularly audited. At the start and end of each programme participants will be asked to complete an array of validated, nationally recommended questionnaires aimed at assessing quality of life, self-management and general parameters related to their health and wellbeing. All the programmes are registered with the diabetes Education Network and the audit tools they recommend will be used and adapted for the purpose of auditing DEAL. The questionnaires used at the start and end of each programme are:

- PAID (Problem Areas in Diabetes Questionnaire)
- HADS (Hospital Anxiety / Depression Questionnaire)
- The Summary of Diabetes Self-Care Activities
- EQ-5D Health Questionnaire

DEAL Aims

1. To provide for local delivery a programme of education for people with Diabetes that is timely and accessible, comprehensive in its coverage of relevant basic diabetes education, flexible in content and delivery, responsive to the individual's clinical, psychological and learning needs and adaptable to individual's educational and cultural background.

2. The curriculum will have a philosophy of supporting self-management attitudes, beliefs, knowledge and skills.

3. It provides educational interventions that reflect established principles of adult learning and are as far as possible theory-driven and evidence-based.

4. Sessions will be accessible to a broad range of people with Diabetes, taking into account age, culture, ethnicity, disability and geographical concerns. Those with special education needs beyond the scope of this programme will be dealt with by the FLEX programme.

DEAL Objectives

1. Learning is facilitated by an appropriately trained multidisciplinary team to small groups of people with diabetes (typically 10-12 people per group), unless group work is considered unsuitable for an individual (when they will be offered FLEX).

2. The educational programme will include techniques to promote active learning (engaging individuals in the process of learning and relating programme content to personal experience), and utilises delivery styles adapted wherever possible to meet different needs, personal choices and individual learning styles.

3. The programme is integrated into routine, longer-term diabetes care.

4. Working within local practical and resource constraints, the programme can be offered at times and venues that facilitate optimal access.

5. The programme is underpinned by explicit arrangements for audit, evaluation and quality assurance to satisfy national standards.

Each individual programme has explicit learning outcomes.

BEND1: Basic Education for Newly Diagnosed T1DM

Learning Outcomes

1. Participants will be able to measure, interpret and act upon self-blood glucose (and ketone) measurements.
2. Participants will be able to list key components of their annual review, including when and how to access relevant services.
3. Participants will be able to list important measures of good diabetes control (HbA1c, LDL-cholesterol, and blood pressure), their present 'readings' and their personal targets.
4. Participants will be able to describe steps they must take to monitor and control their diabetes during intercurrent illness.
5. Participants will be able to construct a healthy living plan (eating and exercise) tailored to their individual needs.
6. Participants will be able to recognise and manage hypoglycaemia.
7. Participants will be able to demonstrate that they know how much extra carbohydrate to take and when to take it or by how much to adjust specific insulin doses to deal with exercise/sport of varying intensity and duration.
8. Participants will be able to drive safely with diabetes; they will be able to list their legal requirements at diagnosis and thereafter and they will be able to list safety precautions they must take each time they drive.
9. Participants will be able to describe how they would manage their diabetes during travel.

Entry into the Programme

Entry into the programme will typically be via Diabetes New Patient Clinic (initially at least). Newly diagnosed (Type 1) patients are typically first seen on the day of diagnosis for emergency education and management and in the few days following diagnosis for stabilisation of blood sugars and support– this programme follows on from that emergency management.

This programme will be for newly diagnosed Type 1 patients.

Programme Structure

There will be 4 sessions at weekly intervals and an optional visit to a supermarket (i.e. 5 sessions in total). Each session will last approximately 3 hours (supermarket 1 hr). Sessions will be facilitated by a Diabetes Nurse Specialist, a Diabetes Specialist Dietitian or both. For each session, relevant resource materials will be available in the room for the group to use as required. Each session is recorded on a care pathway underpinned by this curriculum. Reflection at the close of each session will include collectively working through 20 extended matching answer questions and setting goals and action planning.

New onset Type 1 diabetes requires urgent (same-day) management – it is assumed (as is local practice) therefore that the individual will have been taught the rudiments of insulin injection and blood and ketone monitoring, driving and sick days rules on the day of diagnosis.

BEND 1 Curriculum

Session 1

Content

What is type 1 diabetes
Insulin action
Interpreting blood glucose readings and insulin dose adjustment
Getting help if you're not sure what to do about a result
Sick day rules & ketone monitoring
Hypoglycaemia

Learning / Teaching Approach

- DNS will introduce self and discuss learning objectives
- DNS will give introductory talk about type 1 diabetes and recapping aspects of the above learned on the day of diagnosis (20 min) and patients will share their experiences of type 1 diabetes and insulin dose adjustment since diagnosis (15 min).
- The group will then be asked to develop a step-by-step guide to explain to a 10 yr old child how to manage their diabetes when ill (sick day rules) (15 min)
- DNS will review manual and demonstrate ketone monitoring (15 min)
- Each member of the group will measure their blood sugar and the group will discuss how to get help if not sure what to do with result (5 min).

  Tea Break - 10 min

- DNS will give talk on insulin action & different regimens (15 min)
- Group will work through 10 sets of blood glucose monitoring results, interpreting results and suggesting insulin dose adjustments for different insulin regimens, they'll feed answers back to DNS who will facilitate a discussion on insulin dose adjustment. (30 min).
- Group will be divided into 2 (by height) and each group will complete a quiz on hypoglycaemia (10min) and feed answers back and the group will discuss hypoglycaemia and its management. (15 min)
- Reflection on lessons learned, compete extended matching answer questions and complete an action planning form to identify goals for the next week & close

Session 2

Content

Myths and facts
Tips to eating a healthy diet
Food groups and nutrients
Timing of meals and snacks
Portion sizes
Food labels
Weight loss and exercise
Eating out and alcohol

Learning / Teaching Approach

- Dietitian will introduce herself and discuss learning objectives
- Give patients the opportunity to introduce themselves and what they'd like to get out of the session
- Explain the use of a conversation map tool, to aid learning and interaction
- Ask the group to read out 'myths and facts' cards and discuss
- Ask group to read out 'tips to eating a healthy diet' cards and discuss
- Ask group to read out 'food groups and nutrients' cards and discuss

Tea break – 10 min

- Ask the group to reflect on their own meal pattern, and discuss the benefits of regular meals
- Use the eatwell plate handouts to discuss moderation in the diet, and portion sizes
- Hand out the 'food and diabetes' booklets and use the section on food labels to discuss this. Hand out food labels to patients, in groups of two, and ask them to comment on the fat, sodium and sugar content
- Group to share their experiences of alcohol and discuss alcohol recommendations
- Divide group into groups of 2. Get each group to pick a starter, main course, desert and drink from a menu and to discuss what ordered and feed back explaining why they picked each item. Dietitian will lead a group discussion about the meals the individual's ordered
- Discuss the group's exercise regimes, discuss recommendations for exercise, and hand out 'what's stopping you card's for discussion. Discuss local exercise referral schemes.
- Discuss the benefits of managing weight, and community support available
- Hand out 'managing my diabetes action plan card' and give patients the opportunity to reflect on what they've learnt, and set themselves a goal
- Discuss with the patients that they will be invited to attend a supermarket tour to discuss healthy food choices when shopping.
- The dietitian will offer calorie-controlled meal plans to the patients the following week.

Session 3

Content

Annual review:
Eye checks
Feet checks
Blood pressure
A1c
Lipids
Creatinine
Urine ACR

Learning / Teaching Approach

- Group will reflect on lessons learned in earlier sessions (incl. Supermarket), how they've applied them and discuss any queries (30 min)
- DNS will give introductory talk on the importance and content of annual review (15 min).
- The group will then be asked to complete a record sheet and identify what needs checking at annual review, targets and their last result (they will be provided with a copy of their last clinic sheet) (15 min)

Tea Break - 10 min

- DNS will use the eye model and show group a series of photographs of foot disease and discuss prevention of eye and foot problems (20 min)
- DNS will use sieves to illustrate process of microalbuminuria and share a patient story about diabetic kidney disease and will lead discussion on prevention of DKD (20 min).
- Group will complete a quiz about BP, heart disease and lipids and feed back answers and DNS will lead discussion on BP management, lipids and aspirin and human body model to facilitate discussion (30 min)
- Reflection on lessons learned, compete extended matching answer questions and complete an action planning form to identify goals for the next week & close

Session 4

Content

Diabetes & driving
Diabetes & employment
Diabetes & travel
Diabetes & exercise/sport
Free discussion – conversation map
Assessment

Learning / Teaching Approach

- DNS will give introductory talk on the legal and practical aspects of diabetes & driving and facilitate a discussion on how to drive safely (15 min).
- DNS will lead a discussion on diabetes & employment – problems the group have encountered or fear (15 min)

- The group will be asked to draw up a plan of how to manage their diabetes on a 3-week cycling holiday in North America (includes managing diabetes during exercise/sport) (15mins) the DNS will review their answers and facilitate a discussion on diabetes and travel and exercise (15 min).

Tea break 10min

- The DNS will facilitate a discussion / reflection on how the group is finding 'managing diabetes' by using the Conversation Map 'Managing my Diabetes' this will give the group a opportunity to revisit any of the areas covered in previous weeks and to discuss any issues they may have (approx 2hours)
- If time, the group will watch sections of the 'Diabetes a Shared Journey' DVD, developed by the user group.

- Reflection on lessons learned, compete extended matching answer questions and complete an action planning form to identify goals for the next week & close

BEND1 Assessment Strategy

- As they are newly diagnosed, we propose to assume that most patients eligible for BEND1 will have only very limited knowledge of Type 1 Diabetes and will not therefore require diagnostic assessment. The programme will be delivered on the assumption that it must deliver all of the stated learning outcomes for each individual.
- Continuous, formative assessment is built into the learning/teaching approach of each session of the programme. Learning facilitators have been specifically trained to ensure that the 'performance' of each participant in a group is measured against the learning outcomes for that particular activity. Sessions have been designed to ensure close constructive alignment between what participants do and desired learning outcomes. It should be apparent to participants (and their 'tutor') when individuals have specific learning needs related to a particular activity and participation in the activity and subsequent group and individual reflection/discussion should ensure that learning needs are met.
- Any participants identified as struggling with a particular outcome even after participation in the session's activities will be offered additional learning opportunities, typically via FLEX.
- Most of the learning outcomes are essential to sustained health and well-being with diabetes and some e.g. driving regulations also affect the health and safety of others, thus we will use a predominantly 'criterion-referenced' system of assessment, rather than 'norm-referenced' assessments (criteria are defined in diabetes pathway standards and in individual's hand-held records.
- Biophysical assessments, such as blood glucose control by HbA1c, will be individually criterion-referenced (personal targets), but assessment will also be ipsative since any significant improvement in blood glucose control, for example, is likely to be associated with reduced morbidity and is therefore worthwhile and something to celebrate.

BEND2: Basic Education for Newly Diagnosed T2DM

Learning Outcomes

1. Participants will be able to measure, interpret and act upon self-blood glucose (and ketone) measurements.
2. Participants will be able to list key components of their annual review, including when and how to access relevant services.
3. Participants will be able to list important measures of good diabetes control (HbA1c, LDL-cholesterol, and blood pressure), their present 'readings' and their personal targets.
4. Participants will be able to describe steps they must take to monitor and control their diabetes during intercurrent illness.
5. Participants will be able to construct a healthy living plan (eating and exercise) tailored to their individual needs.
6. Participants will be able to recognise and manage hypoglycaemia.
7. Participants will be able to discuss a range of strategies to facilitate weight loss/control, including healthy eating, graded exercise and pharmacological interventions.
8. Participants will be able to drive safely with diabetes; they will be able to list their legal requirements at diagnosis and thereafter and they will be able to list safety precautions they must take each time they drive.
9. Participants will have an understanding of the main non-diabetic medications used in their management e.g. BP drugs, statins, ACE-inhibitors and aspirin.

Entry into the Programme

Patients will be referred using the existing structured referral form (either from primary care or from the hospital wards).

This programme will be for newly diagnosed Type 2 patients or those with Type 2 diabetes who have not yet received formal structured diabetes education.

Programme Structure

There will be 4 sessions at weekly intervals and an optional visit to a supermarket (i.e 5 sessions in total). Each session will last approximately 3 hours (supermarket 1 hr). Sessions will be facilitated by a Diabetes Nurse Specialist, a Diabetes Specialist Dietitian or both. For each session, relevant resource materials will be available in the room for the group to use as required. Each session will be documented on a care pathway and scanned into the hospital records. Reflection at the close of each session will include collectively working through 20 extended matching answer questions and setting goals and action planning.

BEND 2 Curriculum

Session 1 (conversation map session)

Content

Myths and facts
Tips to eating a healthy diet
Food groups and nutrients
Timing of meals and snacks
Portion sizes
Food labels
Weight loss and exercise
Eating out and alcohol
Do individual meal plans

Learning / Teaching Approach

- Dietitian will introduce herself and discuss learning objectives
- Give patients the opportunity to introduce themselves and what they'd like to get out of the session
- Explain the use of a conversation map tool, to aid learning and interaction
- Ask the group to read out 'myths and facts' cards and discuss
- Ask group to read out 'tips to eating a healthy diet' cards and discuss
- Ask group to read out 'food groups and nutrients' cards and discuss

Tea break – 10 min

- Ask the group to reflect on their own meal pattern, and discuss the benefits of regular meals
- Use the eatwell plate handouts to discuss moderation in the diet, and portion sizes
- Hand out the 'food and diabetes' booklets and use the section on food labels to discuss this. Hand out food labels to patients, in groups of two, and ask them to comment on the fat, sodium and sugar content

- Group to share their experiences of alcohol and discuss alcohol recommendations
- Divide group into groups of 2. Get each group to pick a starter, main course, desert and drink from a menu and to discuss what ordered and feed back explaining why they picked each item. Dietitian will lead a group discussion about the meals the individual's ordered
- Discuss the group's exercise regimes, discuss recommendations for exercise, and hand out 'what's stopping you card's for discussion. Discuss local exercise referral schemes.
- Discuss the benefits of managing weight, and community support available
- Hand out 'managing my diabetes action plan card' and give patients the opportunity to reflect on what they've learnt, and set themselves a goal
- Discuss with the patients that they will be invited to attend a supermarket tour to discuss healthy food choices when shopping.
- The dietitian will offer calorie-controlled meal plans to the patients the following week.

Session 2

Content

What is type 2 diabetes
Monitoring blood sugar
Monitoring ketones
Sick day rules
Hypoglycaemia

Learning / Teaching Approach

- DNS will introduce self and discuss learning objectives
- DNS will give introductory talk about type 2 diabetes and patients will share their experiences of diabetes to date and share any experience of blood glucose testing to date (30mins)
- DNS will discuss blood glucose testing and demonstrate how to do a blood test (10mins) each member of the group will then do a blood test and the DNS will circulate the room to ensure everyone is undertaking the task correctly. review manual and demonstrate blood glucose testing and interpretation (30 min)

  Tea Break - 10 min

- DNS will lead a discussion on factors that may cause blood sugars to either rise or fall (10mins) the group will be divided in two according to height and each group will be asked to draw up a list of sick day rules and feed back (15mins) there will be a group discussion about illness and diabetes and ketone testing. (15min)
- Group will work through a quiz on blood sugar results and feed back answers (20mins)
- DNS will use quiz results to facilitate a discussion about hypoglycaemia, causes and treatment. (15mins)
- Group will be split in two using alphabet (first letter of name) and each group will be asked to work through a couple of scenarios about hypo (10mins) there will be feedback and group discussion (10mins)
- Reflection on lessons learned, compete extended matching answer questions and complete an action planning form to identify goals for the next week & close

Session 3

Content

Annual review:
Eye checks
Feet checks
Blood pressure
A1c
Lipids
Creatinine
Urine ACR
Commonly used medication in type 2 diabetes

Learning / Teaching Approach

- Group will reflect on lessons learned in earlier sessions (incl. Supermarket), how they've applied them and discuss any queries (20 min)
- DNS will give introductory talk on the importance and content of annual review (15 min).
- The group will then be asked to complete a record sheet and identify what needs checking at annual review, targets and their last result (they will be provided with a copy of their last clinic sheet) (15 min)

  Tea Break - 10 min

- DNS will show group a series of photographs of foot and eye disease and discuss prevention of eye and foot problems (20 min)
- DNS will use sieves to illustrate process of microalbuminuria and share a patient story about diabetic kidney disease and will lead discussion on prevention of DKD (20 min).
- Group will complete a quiz about BP, heart disease and lipids and feed back answers and DNS will lead discussion on BP management, lipids and aspirin and human body model to facilitate discussion (30 min)
- DNS will facilitate a discussion on commonly used medications in type 2 including oral hypoglycaemics, insulin, Aspirin, BP tablets, cholesterol tablets etc. She will have a set of empty tablet boxes and will hold each up and say name and ask the group to say what it is used for (30mins)
- Reflection on lessons learned, compete extended matching answer questions and complete an action planning form to identify goals for the next week & close

Session 4

Content

Diabetes & driving
Diabetes & employment
Diabetes & travel
Free discussion – conversation map
Assessment

Learning / Teaching Approach

- DNS will give introductory talk on the legal and practical aspects of diabetes & driving and facilitate a discussion on how to drive safely (15 min).
- DNS will lead a discussion on diabetes & employment – problems the group have encountered or fear (15 min)

- The group will be asked to draw up a plan of how to manage their diabetes on a 3-week cycling holiday in North America (includes managing diabetes during exercise/sport) (15mins) the DNS will review their answers and facilitate a discussion on diabetes and travel and exercise (15 min).

Tea break 10min

- The DNS will facilitate a discussion / reflection on how the group is finding 'managing diabetes' by using the Conversation Map 'Managing my Diabetes' this will give the group a opportunity to revisit any of the areas covered in previous weeks and to discuss any issues they may have (approx 2hours)
- Group will watch sections of the DVD 'Diabetes A Shared Journey'
- Reflection on lessons learned, compete extended matching answer questions and complete an action planning form to identify goals.

BEND2 Assessment Strategy

- As they are newly diagnosed, we propose to assume that most patients eligible for BEND2 will have only very limited knowledge of Type 2 Diabetes and will not therefore require diagnostic assessment. The programme will be delivered on the assumption that it must deliver all of the stated learning outcomes for each individual.
- Continuous, formative assessment is built into the learning/teaching approach of each session of the programme. Learning facilitators will be specifically trained to ensure that the 'performance' of each participant in a group is measured against the learning outcomes for that particular activity. Sessions have been designed to ensure close constructive alignment between what participants do and desired learning outcomes. It should be apparent to participants (and their 'tutor') when they have specific learning needs related to a particular activity and participation in the activity and subsequent group and individual reflection/discussion should ensure that learning needs are met.
- Any participants identified as struggling with a particular outcome even after participation in the session's activities will be offered additional learning opportunities, typically via FLEX.
- Most of the learning outcomes are essential to sustained health and well-being with diabetes and some e.g. driving regulations also affect the health and safety of others, thus we will use a predominantly 'criterion-referenced' system of assessment, rather than 'norm-referenced' assessments.
- Biophysical assessments, such as blood glucose control by HbA1c, will be individually criterion-referenced (personal targets), but assessment will also be ipsative since any significant improvement in blood glucose control, for example, is likely to be associated with reduced morbidity and is therefore worthwhile and something to celebrate.

FETCH1: Further Education & Training for Continuing Health in T1DM

Learning Outcomes

1. Participants will be able to measure, interpret and act upon self-blood glucose (and ketone) measurements.
2. Participants will be able to list key components of their annual review, including when and how to access relevant services.
3. Participants will be able to list important measures of good diabetes control (HbA1c, LDL-cholesterol, and blood pressure), their present 'readings' and their personal targets.
4. Participants will be able to describe steps they must take to monitor and control their diabetes during inter-current illness.
5. Participants will be able to construct a healthy living plan (eating and exercise) tailored to their individual needs.
6. Participants will be able to recognise and manage hypoglycaemia.
7. Participants will be able to demonstrate that they know how much extra carbohydrate to take and when to take it or by how much to adjust specific insulin doses to deal with exercise/sport of varying intensity and duration.
8. Participants will be able to drive safely with diabetes; they will be able to list their legal requirements at diagnosis and thereafter and they will be able to list safety precautions they must take each time they drive.
9. Participants will be able to describe how they would manage their diabetes during travel.

Entry into the Programme

Patients will be referred using the existing structured referral form (either from primary care or from the hospital wards).

This programme will be for Type 1 patients who have previously attended the BEND1 Programme.

Programme Structure

There will be 3 sessions at weekly intervals. Each session will last approximately 2-3 hours. Sessions will be facilitated by a Diabetes Nurse Specialist, a Diabetes Specialist Dietitian or both. For each session, relevant resource materials will be available in the room for the group to use as required. Reflection at the close of each session will include collectively working through 20 extended matching answer questions and clinical scenarios on a flipchart.

FETCH 1 - Curriculum

Session 1

Content

Monitoring blood sugar
Monitoring ketones
Getting help if you're not sure what to do about a result
Sick day rules
Insulin dose adjustment
Hypoglycaemia
Healthy eating
Exercise and diabetes
Alcohol

Learning / Teaching Approach

- Group will discuss their collective experiences of blood glucose, monitoring, ketone testing and application of sick day rules (30 min)
- DNS will recap blood glucose and ketone testing discussed in BEND1 (10 min).
- Group will work through 10 sets of blood glucose monitoring results, interpreting results and suggesting insulin dose adjustments for different insulin regimens (20 min).

  Tea Break - 10 min

- Group will work through a critical review of a patient with diabetic ketoacidosis identifying what went wrong and drawing up a set of recommendations for preventing recurrence (to include sick day rules) (25 min)
- Dietitian will recap principles of healthy eating (15 min).
- Group will devise a role play of hypoglycaemia and its management (20 min).
- Each individual will be given a scenario and the group will discuss how best to manage diabetes in this scenario (holiday, night club trip, sporting event, inter-current illness on a bank holiday) (40 min).
- Reflection on lessons learned & close

Session 2

Content

Annual review:
Eye checks
Feet checks
Blood pressure
A1c
Lipids
Creatinine
Urine ACR

Learning / Teaching Approach

- Group will reflect on lessons learned following first session & any changes they have made to their eating/exercise plans since (20 min)
- DNS will give introductory talk on the importance and content of annual review (15 min).
- The group will then be asked to devise an audit programme to assess a GP surgery's facilitation of successful annual review (15 min)
- DNS will review the programme and get each individual to audit their personal AR performance (15 min)

Tea Break - 10 min

- DNS will show group a series of photographs of eye and foot disease and discuss prevention of eye and foot problems (20 min)
- DNS will discuss 4 patients with diabetic kidney disease (two of whom do well and two of whom do badly) and lead discussion on prevention of DKD and its progression (20 min).
- Group will measure each others blood pressure and then DNS will lead discussion on BP management, lipids and aspirin (30 min)
- Reflection on lessons learned & close

Session 3

Content

Diabetes & driving
Diabetes & employment
Diabetes & travel
Free discussion
Assessment

Learning / Teaching Approach

- 2 group members will role play a patient and group will work through completion of a DVLA form for each patient (20 min).
- The group will then be asked advise Fred (a shift-working roofer) on management of his diabetes cf his employment (he hasn't told his employer) (20 min)
- DNS will summarise diabetes & driving & employment (20 min)

Tea Break - 10 min

- The group will be asked to draw up a plan to take a group of diabetic children cycling on the Isle of White in mid-Summer, staying in Youth Hostels (25 min)
- DNS will lead a discussion on diabetes and travel (20 min)
- Reflection on lessons learned, annual assessment, assessment centre & close

FETCH2: Further Education & Training for Continuing Health in T2DM

Learning Outcomes

1. Participants will be able to measure, interpret and act upon self-blood glucose (and ketone) measurements.
2. Participants will be able to list key components of their annual review, including when and how to access relevant services.
3. Participants will be able to list important measures of good diabetes control (HbA1c, LDL-cholesterol, and blood pressure), their present 'readings' and their personal targets.
4. Participants will be able to describe steps they must take to monitor and control their diabetes during intercurrent illness.
5. Participants will be able to construct a healthy living plan (eating and exercise) tailored to their individual needs.
6. Participants will be able to recognise and manage hypoglycaemia.
7. Participants will be able to discuss a range of strategies to facilitate weight loss/control, including healthy eating, graded exercise and pharmacological interventions.
8. Participants will have an understanding of the main non-diabetic medications used in their management e.g. BP drugs, statins, ACE-inhibitors and aspirin.

Entry into the Programme

Patients will be referred using the existing structured referral form (either from primary care or from the hospital wards).

This programme will Type 2 patients who have already attended BEND2.

Programme Structure

There will be 3 sessions at weekly intervals. Each session will last approximately 2-3 hours. Sessions will be facilitated by a Diabetes Nurse Specialist, a Diabetes Specialist Dietitian or both. For each session, relevant resource materials will be available in the room for the group to use as required. Reflection at the close of each session will include collectively working through 20 extended matching answer questions and clinical scenarios on a flipchart.

FETCH 2 - Curriculum

Session 1

<u>Content</u>

Healthy eating
Exercise
Food labels
Weight loss
Carbohydrate
Alcohol

Learning / Teaching Approach

- Group will reflect on how they have managed their diet and exercise since diagnosis with T2DM (20 min)
- Dietitian will recap the principles of healthy eating (15 min).
- Each individual will be asked to comment on an article about eating/dieting/alcohol from a contemporary women's magazine. (15 min)
- Led by the dietitian, the group will then discuss key principles successful weight management (20 min)

  Tea Break - 10 min

- The group will be asked to devise a classroom session for a group of 6-7 yr old school children on healthy eating (30 min).
- Dietitian will lead a discussion on healthy eating and drinking, exercise and translating understanding into action (40 min).
- Reflection on lessons learned & close

  N.B. The group will be invited to attend a local supermarket with the dietitians in the week ahead to put food choices into practice.

Session 2

Content

Monitoring blood sugar
Monitoring ketones
Managing inter-current illness
Commonly used medications in Type 2 diabetes
Hypoglycaemia

Learning / Teaching Approach

- Group will reflect on their experiences of blood glucose and ketone testing and what to do with their results (20 min)
- DNS will recap about blood glucose monitoring & ketone testing (10 min).
- The group will be given 5 scenarios (with blood glucose results) and asked to suggest what action the person should take (will include sick day rules) (25 min)
- DNS will lead discussion of group plans (15 min)

  Tea Break - 10 min

- The group will be given a list of diabetes-related medications and a list of descriptors, dosing regimens, actions and side effects and asked to match each drug to its dose, its indications, actions and side effects (20 min).
- Group will produce an information booklet on above medications for a newly diagnosed patient (30 min).
- Group will work through role play of hypoglycaemia and it's management (20 min)
- Reflection on lessons learned & close

Session 3

Content

Annual review:
Eye checks
Feet checks
Blood pressure
A1c
Lipids
Creatinine
Urine ACR

Learning / Teaching Approach

- Group will reflect on their experiences of annual review to date (20 min)
- DNS will give introductory talk on the importance and content of annual review (20 min).
- The group will then be asked to devise an audit programme to assess a GP surgery's facilitation of successful annual review (15 min)
- DNS will review the programme and get each individual to audit their personal AR performance (15 min)

Tea Break - 10 min

- DNS will show group a series of photographs of eye and foot disease and discuss prevention of eye and foot problems (20 min)
- DNS will discuss 4 patients with diabetic kidney disease (two of whom do well and two of whom do badly) and lead discussion on prevention of DKD and its progression (20 min).
- Group will measure each others blood pressure (automated home monitoring device) and then DNS will lead discussion on BP management, lipids and aspirin (20 min)
- Reflection on lessons learned, annual assessment, assessment centre & close

ICE: Insulin Carbohydrate Education for Intensive Management of Type 1 Diabetes

Learning Outcomes

1. Participants will be able to measure, interpret and act upon self-blood glucose (and ketone) measurements.
2. Participants will be able to describe in detail insulin action in the context of their insulin regimen.
3. Participants will be able to demonstrate that they have a sound working knowledge of carbohydrate portions (CP), insulin ratios (IR), glycaemic index (GI) and correction doses and will be able to adjust their insulin ratios and carbohydrate portions in varied situations to maintain satisfactory blood glucose control.
4. Participants will be able to describe steps they must take to monitor and control their diabetes during inter-current illness and steps to prevent DKA.
5. Participants will be able to construct a healthy living plan (eating and exercise) (to include alcohol) tailored to their individual needs.
6. Participants will be able to recognise and manage hypoglycaemia.
7. Participants will be able to demonstrate that they know how much extra carbohydrate to take and when to take it or by how much to adjust specific insulin ratios to deal with exercise/sport or varying intensity and duration.

Entry into the Programme

Entry into the programme will typically be by tertiary referral and must be on ICE specific referral form and passed to Nurse Consultant.

This programme will be for Type 1 patients on a basal bolus insulin regimen who wish to intensify their diabetes management and we also strongly recommend all patients wishing to apply for pump therapy complete ICE.

Programme Structure

There will be 4 sessions at weekly intervals, each session will last approximately 4 hours; and will be facilitated by a Diabetes Nurse Consultant and a Diabetes Specialist Dietitian. For each session, relevant resource materials will be available in the room for the group to use as required. Each session will be documented on a care pathway and scanned into the hospital record.

ICE Curriculum

Session 1

<u>Content</u>

What is type 1 and perceptions of Type 1 diabetes and its early management
Insulin action & insulin regimens inc. pumps
HbA1c & target BG ranges
Insulin injection technique
Making insulin work for you
Carbohydrate counting, insulin ratios, correction doses

Learning / Teaching Approach

- Nurse consultant (NC) will give introductory talk about aims of the programme, each participant will introduce themselves & identify their aims (40 min)
- Group will complete short quiz on insulin to ascertain current knowledge (5 min)
- NC will discuss what type 1 diabetes is, insulin action in non-diabetes and group will share experience at diagnosis & identify associated symptoms (20 min)
- NC will give introductory talk on HbA1c and blood glucose targets & each participant will identify their HbA1c/ blood glucose targets & share experiences to date (20 min)
- Group discussion on insulin regimens in particular basal bolus, group (break into small groups depending on numbers) will identify action & duration of action of different insulins with particular focus on basal bolus regimen (20 min)

Tea Break - 15 min

- Dietitian will recap past experience of food anyone know about 'lines' (10mins)
- Principles of healthy eating – do food and diabetes quiz to generate discussion (25 min).
- Which foods affect blood sugar levels – divide into 2, give food models and 3 pieces of paper (increase sugar, no affect, and may increase) and ask each group to put their food model into one of 3 groups and then discuss. Discuss carbohydrate. (15min)
- Dietician will explain how to calculate carbohydrate in food & give supportive written materials & reference books. Group will work through (15 min) example on flip chart (10min) Homework diaries handed out
- NC will explain Insulin ratios and correction doses & give group examples. Each individual will work out their IR (using 50 rule) & correction dose (using 100 rule) & each will be asked to recap homework for week ahead & how to calculate CP.
- Reflection on lessons learned, compete an action planning form to identify goals for the next week & close

Session 2

Content

Share experiences from week
DKA
Carbohydrate counting
Blood glucose monitoring & insulin adjustment
Exercise

Learning / Teaching Approach

- Group will each feedback & share experiences
- NC will give introductory talk on DKA & share experiences (15 min)
- Group will work through a critical review of a patient with diabetic ketoacidosis identifying what went wrong and drawing up a set of recommendations for preventing recurrence (20 min)
- Dietitian will explain food labels & hard to measure foods & participants will use food models to estimate content of carbohydrate in hard to measure foods (30 min)
- Group will split in 3 and each group have a turn at weighing foods and calculating carbs, looking at food labels, and working out a recipe. (30 min)

Tea break (15 min)

- Group will work through some blood glucose diaries and work out what they need to do to IR. (15 min)
- Each participant will feedback from homework diaries, NC will record on flipchart BG results, CP, IR, correction doses etc. Group will discuss each set of results & problem solve (45 min)
- NC will introduce exercise, importance, effect on blood glucose & when not to exercise (15 min)
- Group will share experience of exercise & diabetes (25 min)
- Homework diaries, inc. exercise diaries
- Reflection on lessons learned, compete an action planning form to identify goals for the next week & close

Session 3

Content

Share experiences from week
Hypoglycaemia
Exercise
Eating in the real world
BG monitoring & insulin dose adjustment

Learning / Teaching Approach

- Group will each feedback & share experiences
- NC will give introductory talk on Hypo (5 min)
- Group will work through a case scenario of hypo & share own experiences (25 min)
- Each participant will feed back on experiences of exercise in previous week & impact on blood sugar (20 min)
- Group will work through case scenarios of how to manage exercise & diabetes (15 min)

Tea break 15 min

- Dietitian will give introductory talk on takeaways & alcohol (10 min)
- Group will work through a quiz on units of alcohol and scenarios regarding eating out & alcohol (20 min)
- Group will be spilt in two and given restaurant menus and asked to estimate carbohydrate in them and feedback for discussion (30 min)
- Each participant will feedback from homework diaries, NC will record on flipchart BG results, CP, IR, correction doses etc. Group will discuss each set of results & problem solve (30 min)
- Reflection on lessons learned, compete an action planning form to identify goals for the next week & close

Session 4

Content

Share experiences from week
Free question & Answer session & / or PUMP patient
Diabetes & different diets
Travel and diabetes
BG monitoring & insulin dose adjustment
Course evaluation

Learning / Teaching Approach

- Group will each feedback & share experiences
- Nurse Consultant will lead a question & answer session & a pump patient may have been invited to come and share experiences (60 min)

Tea break 15 min

- Dietitian will introduce Glycaemic index, & weight loss and use DAFNE plates for group to identify GI (30 min)
- Group will work through case scenarios regarding carbohydrate counting & glycaemic index (30 min)
- The group will be asked to draw up a plan to take a group of diabetic children cycling on the Isle of White in mid-Summer (15 min)
- DNS will discuss their answers and diabetes and travel (15 min)
- Each participant will feedback from homework diaries, NC will record on flipchart BG results, CP, IR, correction doses etc. Group will discuss each set of results & problem solve (30 min)
- Course evaluation – group will fill in feed back forms

ICE Assessment Strategy

- Continuous, formative assessment is built into the learning/teaching approach of each session of the programme. Learning facilitators will be specifically trained to ensure that the 'performance' of each participant in a group is measured against the learning outcomes for that particular activity. Sessions have been designed to ensure close constructive alignment between what participants do and desired learning outcomes. It should be apparent to participants (and their 'tutor') when they have specific learning needs related to a particular activity and participation in the activity and subsequent group and individual reflection/discussion should ensure that learning needs are met.
- Most of the learning outcomes are essential to sustained health and well-being with diabetes and some e.g. driving regulations also affect the health and safety of others, thus we will use a predominantly 'criterion-referenced' system of assessment, rather than 'norm-referenced' assessments.
- Biophysical assessments, such as blood glucose control by HbA1c, will be individually criterion-referenced (personal targets), but assessment will also be ipsative since any significant improvement in blood glucose control, for example, is likely to be associated with reduced morbidity and is therefore worthwhile and something to celebrate.

DIME- Diabetes Insulin Management Education

Learning Outcomes

1. Participants will be able to measure, interpet and act upon self-blood glucose (and ketone) measurements in relation to individual insulin regimens.
2. Participants will be able to discuss benefits of insulin/insulin types.
3. Participants will be able to list key components of their annual review, including when and how to access relevant services.
4. Participants will be able to list important measures of good diabetes control (HBA1C, LDL-cholestrol and blood pressure), their present readings and their personal targets.
5. Participants will be able to describe steps they must take to monitor and control their diabetes during intercurrent illness.
6. Participants will be able to construct a healthy living plan (through use of conversation maps).
7. Participants will be able to recognise and manage hypoglycaemia.
8. Participants will be able to discuss a range of strategies to facilitate weight loss/control, including healthy eating, graded exercise in relation to their present insulin regime.
9. Particpants will be able to drive safely with diabetes: they will be able to list their legal requirements and be able to list safety precautions they must take each time they drive.
10. Understanding will be given regarding differences between Type 1/Type 2 Diabetes.

Entry into the Programme

Patients will be referred using the existing structured referral form (either from primary care or from the hospital.
The programme will be for Type 1(not newly diagnosed) and Type 2 patients who are on insulin therapy with or without oral agents.

Programme Structure

There will be 3 sessions at weekly intervals .Each session will last approximately 2-3 hours. Sessions will be facilitated by a Diabetes Nurse Specialist, a Diabetes Specialist |Dietician or both. For each session, relevant resource materials will be available in the room for the group to use as required. Each session will be documented on a care pathway. Reflection at the close of each session will include evaluation sheets and setting goals and action planning.

DIME Curriculum

Session 1

Content

Differences between Type 1/Type 2 Diabetes
Use of Conversation Map
Benefits of Insulin
Types of insulin
Blood Glucose Patterns
Hypoglycaemia
Reaching my Goals

Learning /Teaching Approach

- DNS will introduce self and discuss learning objectives
- DNS will give introductory talk about Type 1/Type 2 Diabetes and provide explanations of why insulin therapy has been commenced.
- Brief explanation will be given of use of conversation Map/what session will be like.
- Patients /DNS will be issued with name badges.
- Group will work round Conversation Map and cover contents listed above
- Demonstration tools may be used on map itself to aids learning
- Participants will be aware of delivery devices for insulin and will encourage discussion regarding feelings around insulin injections.
- Participants will be given Blood Glucose Results cards and asked to identify any patterns with results.
- At the end of session will be encouraged to monitor blood glucose to identify any patterns and if confident to self titrate doses as/if required.

Tea Break-10-15 minutes during Session

Session 2

Content

Use of Conversation Map
Meal timings
Keeping active
Food Groups
Healthy eating
Alcohol

Learning /Teaching Approach

- Dietician will introduce self and discuss learning objectives
- Brief explanation will be given of use of Conversation map/what session will be like
- Dietician/patients will be issued with name badges
- Demonstration tools may be used on map itself to aid learning
- Participants will be given quiz cards to encourage discussion regarding food/alcohol etc**.**

Tea Break-10-15 minutes during Session

Session 3

Content

Illness/Sick Day Rules
Holidays
Annual Review
Overview of Diabetic Complications
Driving
Course Evaluation

Learning /Teaching Approach

- Nurse will introduce session and discuss learning Objectives
- Group will reflect on lessons learned in earlier sessions, how they have applied them and discuss any queries.
- DNS will lead discussion on factors that cause blood glucose to rise and fall(the group will be divided in two)
- Each group will be asked to draw up list of sick day rules and feed back. There will be a discussion about illness(in relation to insulin)/diabetes /Ketone testing
- Participants will work through scenarios incorporating annual review/holidays/Driving.
- Course evaluation will be given to participants to encourage constructive feedback

Tea Break 10-15 minutes during session

PACE: Pumps And Carbohydrate Education – for patients on CSII Therapy

Learning Outcomes

1. Participants will be able to measure, interpret and act upon self-blood glucose (and ketone) measurements.
2. Participants will be able to describe in detail insulin action in the context of their insulin pump.
3. Participants will be able to demonstrate that they have a sound working knowledge of carbohydrate portions (CP), insulin ratios (IR), glycaemic index (GI) and correction doses

and will be able to adjust their insulin ratios and carbohydrate portions in varied situations to maintain satisfactory blood glucose control.
4. Participants will be able to describe steps they must take to monitor and control their diabetes during inter-current illness and steps to prevent DKA.
5. Participants will be able to construct a healthy living plan (eating and exercise) (to include alcohol) tailored to their individual needs.
6. Participants will be able to recognise and manage hypoglycaemia.
7. Participants will be able to demonstrate that they know how much extra carbohydrate to take and when to take it or by how much to adjust specific insulin ratios to deal with exercise/sport or varying intensity and duration.

Entry into the Programme

Entry into the programme will be from the insulin pump clinic.

This programme will be for Type 1 patients on an insulin pump, who wish to intensify their diabetes management and update their knowledge of carbohydrate counting and advanced pump features.

Programme Structure

There will be 3 sessions at weekly intervals, each session will last approximately 3-4 hours; and will be facilitated by a Diabetes Nurse Consultant and a Diabetes Nurse Specialist and a Diabetes Specialist Dietitian. For each session, relevant resource materials will be available in the room for the group to use as required. Each session will be documented on a care pathway and scanned into the hospital record.

PACE Curriculum

Session 1

Content

Introductions & expectations
HbA1c & target BG ranges
Carbohydrate counting & healthy eating
Insulin ratios, correction doses
Applying carbohydrate counting and adjustment to pump therapy

Learning / Teaching Approach

- Nurse consultant (NC) will give introductory talk about aims of the programme, each participant will introduce themselves & identify their aims (40 min)
- NC will discuss what type 1 diabetes is, insulin action in non-diabetes and group will share experience at diagnosis & identify associated symptoms (20 min)
- NC will give introductory talk on HbA1c and blood glucose targets & each participant will identify their HbA1c/ blood glucose targets & share experiences to date (20 min)
- Group discussion on insulin pump therapy (20 min)

  Tea Break - 15 min

- Dietitian will recap past experience of food anyone know about ‘lines’ (10mins)

- Principles of healthy eating – do food and diabetes quiz to generate discussion (25 min).
- Which foods affect blood sugar levels – divide into 2, give food models and 3 pieces of paper (increase sugar, no affect, and may increase) and ask each group to put their food model into one of 3 groups and then discuss. Discuss carbohydrate. (15min)
- Dietician will explain how to calculate carbohydrate in food & give supportive written materials & reference books. Group will work through (15 min) example on flip chart (10min) Homework diaries handed out
- NC will explain Insulin ratios and correction doses & give group examples. Each individual will work out their IR (using 50 rule) & correction dose (using 100 rule) & each will be asked to recap homework for week ahead & how to calculate CP.
- Reflection on lessons learned and complete an action planning form to identify goals for the next week & close

Session 2

Content

Share experiences from week
DKA & the pump
Carbohydrate counting
Blood glucose monitoring & insulin adjustment
Exercise & the pump

Learning / Teaching Approach

- Group will each feedback & share experiences
- NC will give introductory talk on DKA & share experiences (15 min)
- Group will explain what 'sick day rules' are and NC will explain underlying pathophysiology (20 min)
- Dietitian will explain food labels & hard to measure foods & participants will use food models to estimate content of carbohydrate in hard to measure foods (30 min)
- Group will split in 3 and each group have a turn at weighing foods and calculating carbs, looking at food labels, and working out a recipe. (30 min)

Tea break (15 min)

- Group will work through some blood glucose diaries and work out what they need to do to IR. (15 min)
- Each participant will feedback from homework diaries, NC will record on flipchart BG results, CP, IR, correction doses etc. Group will discuss each set of results & problem solve (45 min)
- NC will introduce exercise, importance, effect on blood glucose & when not to exercise (15 min)
- Group will share experience of exercise & diabetes (25 min)
- Homework diaries, inc. exercise diaries
- Reflection on lessons learned and complete an action planning form to identify goals for the next week & close

Session 3

Content

Share experiences from week
PUMP features
Bolus Features
Eating in the real world
BG monitoring & insulin dose adjustment

Learning / Teaching Approach

- Group will each feedback & share experiences (15 mins)
- DNS will give introductory talk on advanced pump features and group will share their experiences to date (15 min)
- Group will work through case scenario's highlighting how to use advanced pump features (30 mins)

Tea break 15 min

- Dietitian will give introductory talk on takeaways & alcohol (10 min)
- Group will work through a quiz on units of alcohol and scenarios regarding eating out & alcohol (20 min)
- Group will be spilt in two and given restaurant menus and asked to estimate carbohydrate in them and feedback for discussion (30 min)
- Each participant will feedback from homework diaries, DNS / NC will record on flipchart BG results, CP, IR, correction doses etc. Group will discuss each set of results & problem solve (30 min)
- Reflection on lessons learned, complete an action planning form to identify goals for future
- Course evaluation

PACE Assessment Strategy

- Continuous, formative assessment is built into the learning/teaching approach of each session of the programme. Learning facilitators will be specifically trained to ensure that the 'performance' of each participant in a group is measured against the learning outcomes for that particular activity. Sessions have been designed to ensure close constructive alignment between what participants do and desired learning outcomes. It should be apparent to participants (and their 'tutor') when they have specific learning needs related to a particular activity and participation in the activity and subsequent group and individual reflection/discussion should ensure that learning needs are met.
- Most of the learning outcomes are essential to sustained health and well-being with diabetes and some e.g. driving regulations also affect the health and safety of others, thus we will use a predominantly 'criterion-referenced' system of assessment, rather than 'norm-referenced' assessments.
- Biophysical assessments, such as blood glucose control by HbA1c, will be individually criterion-referenced (personal targets), but assessment will also be ipsative since any significant improvement in blood glucose control, for example, is likely to be associated with reduced morbidity and is therefore worthwhile and something to celebrate.

FLEX: Flexible Education for eXtra needs

Learning Outcomes

Learning outcomes will be identified and agreed with the individual at the outset of their programme, but are likely to include some or all of the learning outcomes stated for other programmes in the DEAL suite (above).

Entry into the Programme

Entry into the programme will follow specialist assessment, typically in New Patient Clinic. Participants may have previously attended other programmes in the DEAL suite.

Programme Structure

There will be n (tailored to the individual's needs) sessions at (typically) weekly intervals. The duration of each session will be tailored to the learning needs and learning style of the individual. Sessions are likely to be facilitated by either a Consultant, a Diabetes Nurse Specialist or a specialist Dietitian.

Content

There will be no pre-specified programme content or Learning/Teaching style for FLEX, but it is likely to draw from those specified in the other DEAL Programmes.

FLEX Assessment Strategy

- Assessment of the need for FLEX will be made by the consultant or nurse consultant in collaboration with the individual patient.
- Subsequent formative and terminal assessments (as necessary) will be adopted (adapted if necessary) from assessments used in the other programmes above.

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