

# Use of the ANDHII Tool for Core Dietetic Data monitoring: The CANDHII-UK Project

Part 1:

Viability of using ANDHII for joint site evaluation of outcome  
measures

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The Association  
of UK Dietitians

General and Education Trust (GET)

## CANDHII UK

- Feasibility study to assess if two hospital sites can cooperate for joint service evaluation of outcome measures. (Part 1)
- Use of the ANDHII Tool to assess, establish and monitor outcome measures for Parenteral Nutrition and Oral Nutrition Support (Part 2)

Funding:

**British Dietetic Association General Education Trust** (June 2017 -June 2018)

and in collaboration with

**US Academy of Nutrition and Dietetics and Eatright.org**

# Background

- There is a recognised need for progressive change in healthcare to establish a high quality, cost effective service
- Selection, collection and analysis of 'outcome measures' is essential to establish 'best practice' and drive this change



# What are Outcome Measures?

An 'outcome measure' enables us to examine whether or not an intervention has led to change in health or well-being (good or bad).

They can be 'patient reported outcome measures' (PROM) to assess patient satisfaction or clinical/functional to assess the effectiveness of care.

Prendeville (2016); Kirkham *et al* (2016)



## *Core Outcome/Data Sets (COS or CDS)*

A standardised set of **minimal data (outcome measures)** routinely collected from every relevant patient/client at participating institutions, for the evaluation of defined key (**core**) questions, to determine the effectiveness of care.



# Using Outcome measures

- Clinical Practice - *individual patient assessment*
- Multi-disciplinary teams (MDT) *assessment*
- Research projects
- Service evaluation



# Why are 'outcome measures' not routinely recorded?

- Health professionals, including dietitians, have been slow to adopt a rigorous approach to the evaluation of real patient data, in the form of 'core data sets' of outcome measures.
- Cited reasons include.....
  - *Lack of consistency in recording data (even if a system to record data is in place)*
  - *Large variation in choice of outcome measures*
  - *Different units of measurement for same criteria*
  - *Lack of ability to interpret the data*
  - *No collective evaluation of recorded data*
  - *Time available is often not long enough to achieve outcome*

*Cant, 2008; Bruening, 2015*

# How can we improve???

.....Literature suggests:

- Outcome measures should be robust and feasible to promote use in clinical practice
- They should support clinical decision making to be perceived as 'useful'
- The 'number' of measures should be kept to a minimum.
- Compliance is enhanced if data is recorded on 'user friendly' software
- 'Top down' leadership promotes engagement

Kirkham et al 2016, Turner-Stokes, 2012

# Who is recording COS/CDS?

Current literature suggests.....

- Clinical trials:
  - *Cancer*
  - *Rheumatology*
  - *Neurology* (*Gorst, 2016*)
- MDT French CDS for geriatric patients with cancer (*Paillaud, 2018*)
- European CDS for rheumatoid arthritis & clinical Care (*Radner, 2018*)

*"If you can't measure it you can't manage it!!"*



# The way forward.....

Dietitians need to develop

## ✓ Core Data Sets

- To reduce variation in choice of outcome measures and unit of measurement
- To compare and evaluate care

## ✓ A system for the evaluation of outcome measures

- To improve consistency in recording data
- To support the effective statistical interpretation of outcome



- An 'online' outcome tool for patient assessment, nutritional diagnosis, monitoring and evaluation of dietetic outcomes.
- It links with the American Academy of Nutrition and Dietetics' Nutrition Care Process (NCP) Terminology (eNCPT) which includes over 1700 terms specific to the four phases of the NCP (assessment, diagnosis, intervention, monitoring & evaluation)

*Murphy & Steiber (2015)*



# The CANDHII - UK The Project Team



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# The CANDHII -UK Project

- Has explored 'ethical' and 'clinical governance' issues in the sharing of data between 2 NHS hospitals setting in the UK, in two localities:
- Ethical:
  - Patient data can be ethically 'shared' providing it is routinely collected data and is entirely anonymised within the online data analysis system
  - Strict control of patient identifier held outside an individual patients record
- Clinical Governance:
  - Both hospitals had different protocols for set-up of 'hand held devices or I-pads' for collection of data at ward level. This led to different systems for the recording of data and thus variability in the handling of data.

Process.....



Model for development of Core Data Sets  
*(Payne, 2016)*

## Step 2.....Identify Core Questions

Aim is to generate core questions and relevant outcome measures to create 'core data sets' (CDS).

Consider.....

- Round table discussion
- Focus groups
- Questionnaires
- Delphi Survey Design

*Kirkham (2016), Paillaud (2018)*

# What we did

- Face to face meetings and email to agree and confirm the core data we would need to record for the initial feasibility trials to use ANDHII.
- A one-year license for ANDHII purchased
- i-pads for each hospital for data recording at ward level

Topic areas chosen:

- Parenteral Feeding (PN) - smaller numbers, tend to not move wards and regular assessment
- Oral Nutritional supplements (ONS) as second trial group

# ANDHII has three main components:

## 1. *Smart Visits*

Describes patient care and outcomes using the Nutrition Care Process Terminology for assessment, diagnosis, intervention, monitoring and evaluation

## 2. Dietetic Outcomes Registry (DOR)

DOR aggregates anonymous data from ANDHII use and makes that data accessible for outcomes research, quality improvement projects and comparative effectiveness research.

## 3. Nutrition Research Informatics

facilitates multi-site and even multinational experimental research, allows secure upload of informed consent documentation, and offers a variety of privacy and compliance configurations and automatic conversion of units and time zones.

ANDHII video here

<https://youtu.be/DCKXm1R3s14>

## Patient List

Show: 10 entries

Search

Includes Test Patient

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	Re-identification Code	Date of Birth	Last Entry	Incomplete Entry	
New Entry	62657423		9/13/2019	9/13/2019	0:00 View Details
New Entry	67140376		9/13/2019	9/13/2019	0:00 View Details
New Entry	14624856		8/21/2019	8/21/2019	0:00 View Details
New Entry	32496028		8/23/2019	8/23/2019	0:00 View Details
New Entry	44960056		4/16/2019	4/16/2019	0:00 View Details
New Entry	65620284		4/6/2019	4/6/2019	0:00 View Details
New Entry	87181496		3/14/2019	3/27/2019	0:00 View Details
New Entry	29862798		4/2/2019	3/26/2019	0:00 View Details
New Entry	19669486		4/19/2019	3/27/2019	0:00 View Details
New Entry	10112967		3/11/2019	3/27/2019	0:00 View Details

Showing 1 to 10 of 91 entries

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# Results Part 2 - Parenteral Nutrition

Dr Paula Murphy



# Results Part 3 - Oral Nutrition support

Chloe Phippen



# Part 4                      Summary

From the results of the two trials we can see....

- ✓ It is difficult to determine what outcomes dietitians need to agree
- ✓ The shorter time patients/clients are in an acute setting (as here) may mean we need to be more realistic in terms of setting outcomes
- ✓ Different clinical outcomes, for the same patients, may be necessary in different setting e.g. acute vs community care
- ✓ Keep the number of variables simple to enable monitoring of realistic outcomes.

- ✓ Start with the end-point in mind - be brutally realistic about the relevance of the data you intend to record.....**if you can't use it, don't record it.**
- ✓ It would be helpful to involve (or consult) a statistician at this stage.
- ✓ We found that sharing data between hospital is possible, providing the data is totally anonymised. This allowed us to gather a larger set of data than if each worked alone.
- ✓ It is essential to 'agree' the 'terms/variables' you will select and the format of text data at the outset.

## ✓ The ANDHII tool

- Was a helpful platform to enable us to collect and collate data across two sites
- Is complex and requires training in use, as there is a huge number of 'terms' to choose from when selecting and recording data
- The 'statistical analysis' of group data is quite difficult via the ANDHII
- We had fabulous support from Margaret Dittloff at eatright.org, who is using our experience to help update the functionality of the ANDHII tool.

## ✓ Did we manage to agree a Core Data Set for ONS and PN?

- Remember that the model is a cycle ....step 8. Review and revise....!!

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