The orthotic management of patients with plantar callosities

Veronica Newton
Senior Lecturer
in Podiatry

Venue: Primary Care Conference 2012

Calderdale and Huddersfield NHS
NHS Foundation Trust

University of HUDDERSFIELD

Session outline

- Identifying the problem
- Trust and University collaboration
- Clinical Governance 2002 & 2010
- The road map for Orthotics decision making
- Current developments – CPOD interactive tool
- Enhanced CPD package
- Aim: Offer a model to map orthotic decision making when managing common foot pathologies

2002

- Patient attends with painful plantar callus

What do you do?

Debridement offers transient pain relief
Redmond et al (1999) Woodburn et al (2000), Davys (2005),

Fardon et al (2009) Core Podiatry sustain or improve foot health and pain reduction in 75% patients(n=1047)

2002

+

~ Management of plantar callus
~ address biomechanical dysfunction
~ What device will you prescribe?

Orthotic management of patients with plantar callus

- **Areas of agreement**
- Plantar callus debridement
- Clinical padding
- Visual analogue scales (HOM)

- **Areas of improvement**
- Orthotic prescription
- Cost
- Quality
- prefabricated
- Cast/non casted

=huge variation

Concept of Clinical Governance

- "A framework through which NHS organisations are accountable for continually improving the quality of their services and safeguarding high standards of care, by creating an environment in which excellence in clinical care will flourish "

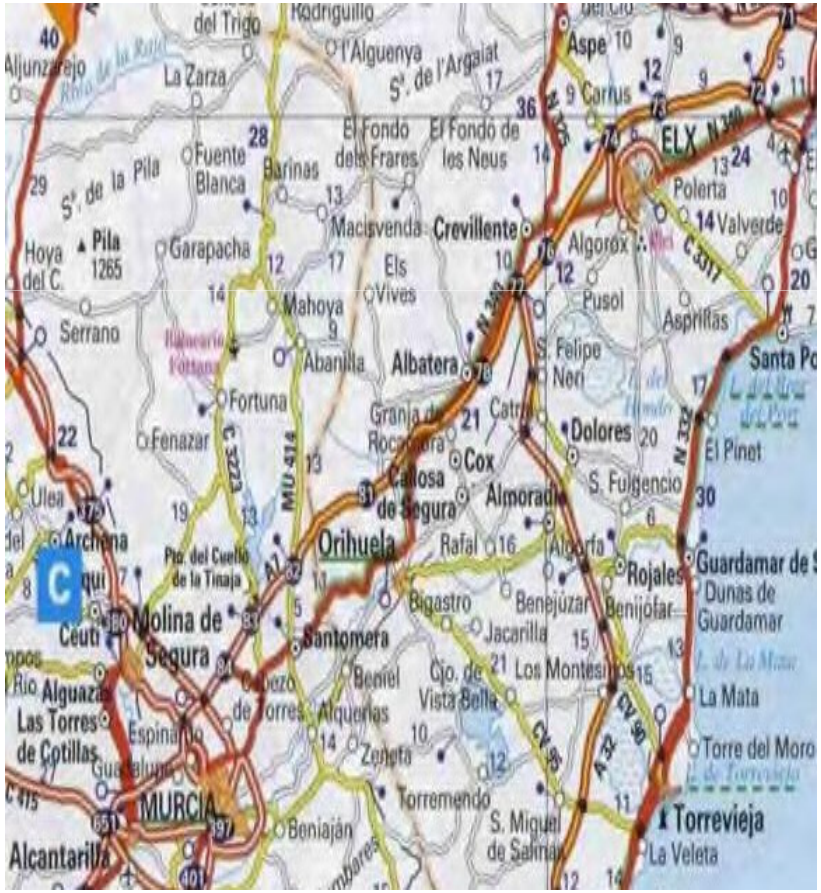
NHS Trust

University

Clinical Governance collaboration

2002 *Desire to develop agreed pathway of care for plantar callus management.* ***Integrated care pathway (ICP)*** *This would include* ***orthoses provision***

The route from Podiatric Pathology to Orthotics….?



The Practitioners Orthotics Toolkit

- Integrated care pathway
- experience
- Cost
- Availability
- Provider
- Examination technique
- Research
- Biomechanical theory
- outcomes

Clinical governance Orthotics revisited 2010…

Clinical governance Orthotics revisited 2010

- Can orthoses be successful for managing painful plantar callus?

- Scalpel debridement –Redmond et al (1999) Woodburn et al (2000), Davys (2005), Landorf (2011) carrott trial

CG: Back to basics
Why are orthoses prescribed?

- Reduce pain
- Improve functional ability
- Improve quality of life
- modify forces
- Not all feet respond the same if given same prescription

CG:Back to basics
Which HOM'S -orthoses provision?

- Pain
- Foot function
- Walking speed
- Plantar pressure
- Gait parameters

2012

- Patient attends with painful plantar callus.

- What do you do?

Siddle H et al (2012) CARROT

CAllus Reduction Reinforcing

Orthotic Therapy

Gold standards for orthotic prescription

- No international guidelines or national pathway for orthotics prescription. Menz (2009)
- In most disciplines research falls on a continum from basic to applied; to expand the base of knowledge or to solve a problem.
- Perception that the overall body of evidence for orthotics is limited.
- Developing strong evidence for orthoses is a serious problem if we use the traditional hierarchies

Coverting research into practice

- The effectivenss of evidence based practice relies on availability of research and the ability of practitioners to use it appropriately.
- The challenge for practitioners prescribing foot orthoses from the evidence base is the breadth of the pathologies and inividual variability.
- Practitoners sense a need for outcomes based research and EBP.
- Info needed for NHS commissioning where services are expected to provide outcome data.

Quality orthotics decisions

Quality

Demonstrated by CPOD decision making model

Transparency of care
Standardised model
Novice or Experienced practitioner
Record decision making enhanced CPD reflection

NHS Trust

University

Why Clinical Governance collaboration?

2010 Improve Orthotics resource into a transparent method of accountability for orthotics provision – **CPOD**

2010 : How would CG work in this context?

- Improve standards of Orthoses provision by unifying the University educational resource with local Trust services

  We needed to

1. identify standards of orthotics care, EBP, local service, resource impact,
2. Provide a map for practitioners decision making in orthotic service provision
3. Offer a template of reflection for constant dynamic improvement.

Collaborative Pathway Orthotic Decision (CPOD)

- Structured resource to record and document evidence which supports the stages of decision making for orthoses provision.
- Flexible intranet based University of Huddersfield platform
- Dual resource for use in education and clinical practice
- It is Cross Device Compatable (I-phone, andriod, I- pad, netbook, laptop,tablet)
- Enhanced CPD component which can be saved/print to PDF meets Professional body requirements.

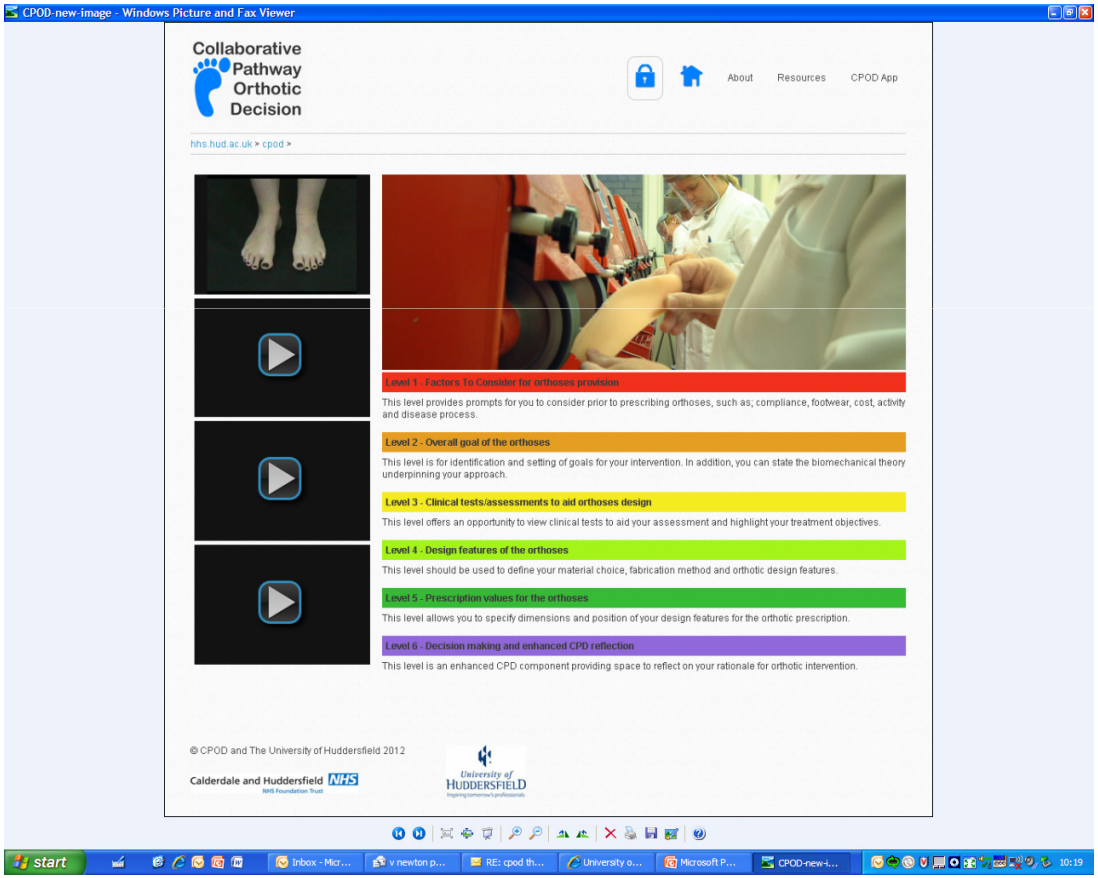
Why do we need CPOD?

- CAllus Reduction Reinforcing Orthotic Therapy
- Benchmarking
- Audit
- Standardise
- Evaluation
- Service improvements

Aim of CPOD

- CPOD will Maintain practitioner autonomy whilst providing a toolkit for mapping decision making
- To capture multiple factors impacting on success of orthotic prescription

Insert screen shot of CPOD tool face page



Biomechanical paradigms

- Sub talar joint neutral - Root
- Sagittal plane facilitation - Dannanberg
- Tissue stress theory /SALRE – Kirby, mcpoil & hunt
- New theories - mid tarsal motion - Nester
- Theories in opposition but aim to achieve optimum function / pain relief/modify force

Orthotic - Levels of mapping and decision making

1&2

- Factors to consider
- Overall goal subjective symptoms

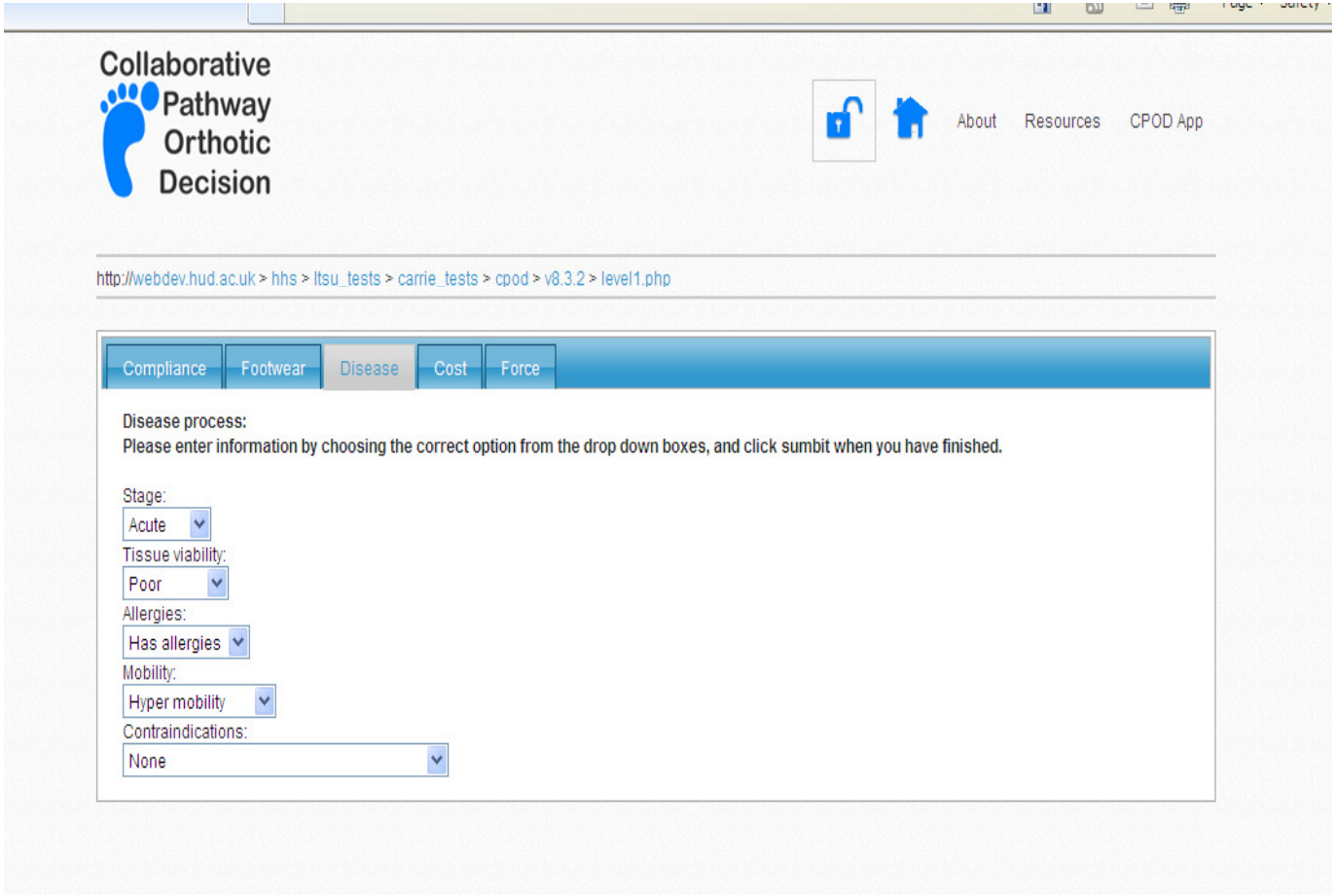
3&4

- Clinical assessment/tests
- Design features

5&6

- Prescription
- rationale,decision evaluation

Insert screen shot of captured info



The road to orthotic happiness….

With thanks to

Special Thank you to Duane Laverick Learning Technology Assistant who has remained calm throughout this project.

contact details

- Veronica Newton v.newton@hud.ac.uk
- Liza Dunkley l.dunkley@hud.ac.uk
- Sara Lewis Sarah.Lewis@cht.nhs.uk

Reference List

- Scally, G. and Donaldson, L,J. (1998) Clinical governance and the drive for quality improvement in the new NHS in England. *British Medical Journal* 317(7150)4 61-65.
- Farndon , L. et al (2009) Clinical Audit Of Core Podiatry Treatment In The NHS. *Journal Of Foot And Ankle Research 2:7*
- Redmond, A., N. Allen, et al. (1999) Effect of scalpel debridement on the pain associated with plantar hyperkeratosis. *Journal of the American Podiatric Medical Association* 89(10): 515-519.
- Landorf ,K. et al (2011) Effectiveness Of Scalpel Debridement For Painful Plantar Calluses In Older People:a Randomised Trial. *Journal of Foot and ankle research* 4(Suppl):023
- Davys H et al (2005) Debridement Of Plantar Callosities In Rheumatoid Arthritis: A Randomized Controlled Trial. *Rheumatology* 44:207-2010
- Woodburn, J. et al (2000) Preliminary investigation of debridement of plantar callus in rheumatoid arthritis. *Rheumatology* 39:652-654
- Siddle, H. et al (2012) *Abstract* Debridement of painful forefoot plantar callosities in rheumatoid arthritis: The Carrot Randomised Controlled Trial. *Rheumatology* 51(Suppl 3)
- Hennessy, K. et al (2012) Custom Foot Orthoses for Rheumatoid Arthritis: *A Systematic Review. Arthritis Care and Research* 64:3 311-320