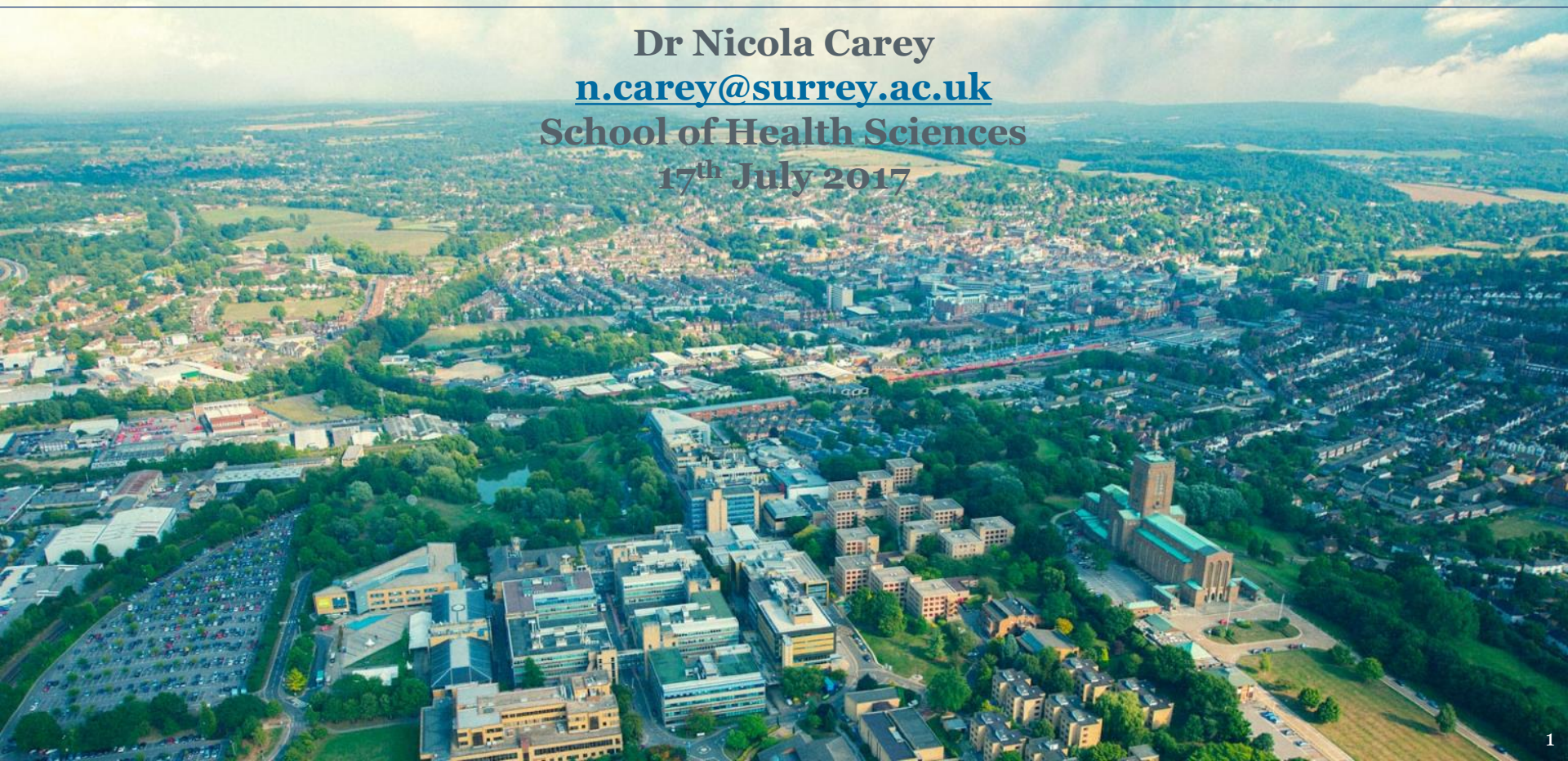
Evaluation of physiotherapist and podiatrist independent prescribing: Summary findings from final report

Dr Nicola Carey
n.carey@surrey.ac.uk
School of Health Sciences
17th July 2017



Project overview

Evaluation of physiotherapist and podiatrist independent prescribing, mixing of medicines and prescribing of controlled drugs

Project web page:
http://www.surrey.ac.uk/fhms/research/healthcarepractice/evaluation_of_physiotherapy.htm

University of Surrey
- Dr Nicola Carey (PI)
- Dr Karen Stenner
- Professor Heather Gage
- Peter Williams
- Judith Edwards

University of Brighton
- Professor Ann Moore
- Dr Simon Otter

Cardiff University
- Professor Molly Courtenay

Greater Manchester Health & Social Care Partnership
- Dr Jane Brown

Disclaimer

This report is independent research commissioned and funded by the Department of Health Policy Research Programme (Evaluation of Physiotherapist and Podiatrist Independent Prescribing, Mixing of Medicines and Prescribing of Controlled Drugs, PR-R7-0513-11002).The views expressed in this publication are those of the author(s) and not necessarily those of the Department of Health.

Abbreviations

IP	Independent prescribing/prescriber
SP	Supplementary prescribing/prescriber
PPIP	Physiotherapist or podiatrist independent prescriber
NP	Non-prescriber
PT	Physiotherapist
PO	Podiatrist
MMA	Medicines management activity – i.e.. supply, administer, alter, prescribe or recommend medicine

Non-medical prescribing in the UK

Community practitioner prescriber (District nurse, health visitor, community nurse or school nurse)

- Approx 36,300
- Mainly appliances, dressings, P and GSL medicines and 13 POMs

Nurse Independent Supplementary Prescribers (NISP)

- Any first level registered nurse
- October 2016- 35,971 *(NMC 2016)*

Other healthcare professional prescribers

- 4,295 Pharmacists (independent/supplementary prescribers)
- Podiatrists (273) and Physiotherapists (506) supplementary prescribers
- Optometrists (number not known) and radiographers (38) supplementary prescribers

(Source: GPC & HCPC 2016)

Non-medical prescribing (NMP) in physiotherapy and podiatry

Physiotherapy		Podiatry
	1980	Exemptions *(local anaesthetics)*
Patient Group Directions	2000	Patient Group Directions
Supplementary Prescribing	2005	Supplementary Prescribing
	2006	Exemptions *(antimicrobials)*
Independent Prescribing	2013	Independent Prescribing

Study aim and objectives

Aim: to evaluate the effectiveness and efficiency of independent prescribing by physiotherapists and podiatrists

1. **Describe and classify services provided by PPIPs**
2. **Identify factors that inhibit/facilitate implementation of IP**
3. **Evaluate contribution to patient experience**
4. **Identify MMA that most contribute to care outcomes**
5. **Assess quality, safety and appropriateness of PPIP**
6. **Evaluate impact on costs, quality, effectiveness and organisation of care**
7. **Explore prescribing models and resource implications**
8. **Evaluate educational programme**

Study Design – mixed method, multi-phase

Phase 1.

- Literature review

Phase 2.

- PP-IP trainee survey, during and post-course
- Analysis of documentary evidence

Phase 3.

Comparative case study with economic analysis

- **Mixed methods**: interviews, patient questionnaires, work sampling, observation diaries, analysis of consultations, record audit, prescription audit

Phase 1: Literature review

A total of 87 articles related to Podiatry and Physiotherapist medicines management

Key findings: A lack of empirical work related to prescribing in either professions

Podiatry

- Existing literature was very limited, largely descriptive, and focussed on legislative developments of medicines access and NMP in the UK and Australia

Physiotherapy

- International research indicates administering medicines and/ or advising patients about medicines
- Concerns re level of pharmacological training to support these activities
- Key clinical areas for MMA were MSK, orthopaedic and sports therapy

Recommend

- Need for robust evaluation of involvement in medicines management activities, including prescribing

Phase 2: Trainee PP-IP questionnaire & Documentary evidence

- Longitudinal online questionnaire: beginning and end of training
- Approached via HEI NMP course leads, NMP conferences, professional newsletters and direct contact with team
- Data collection March 2014-April 2016

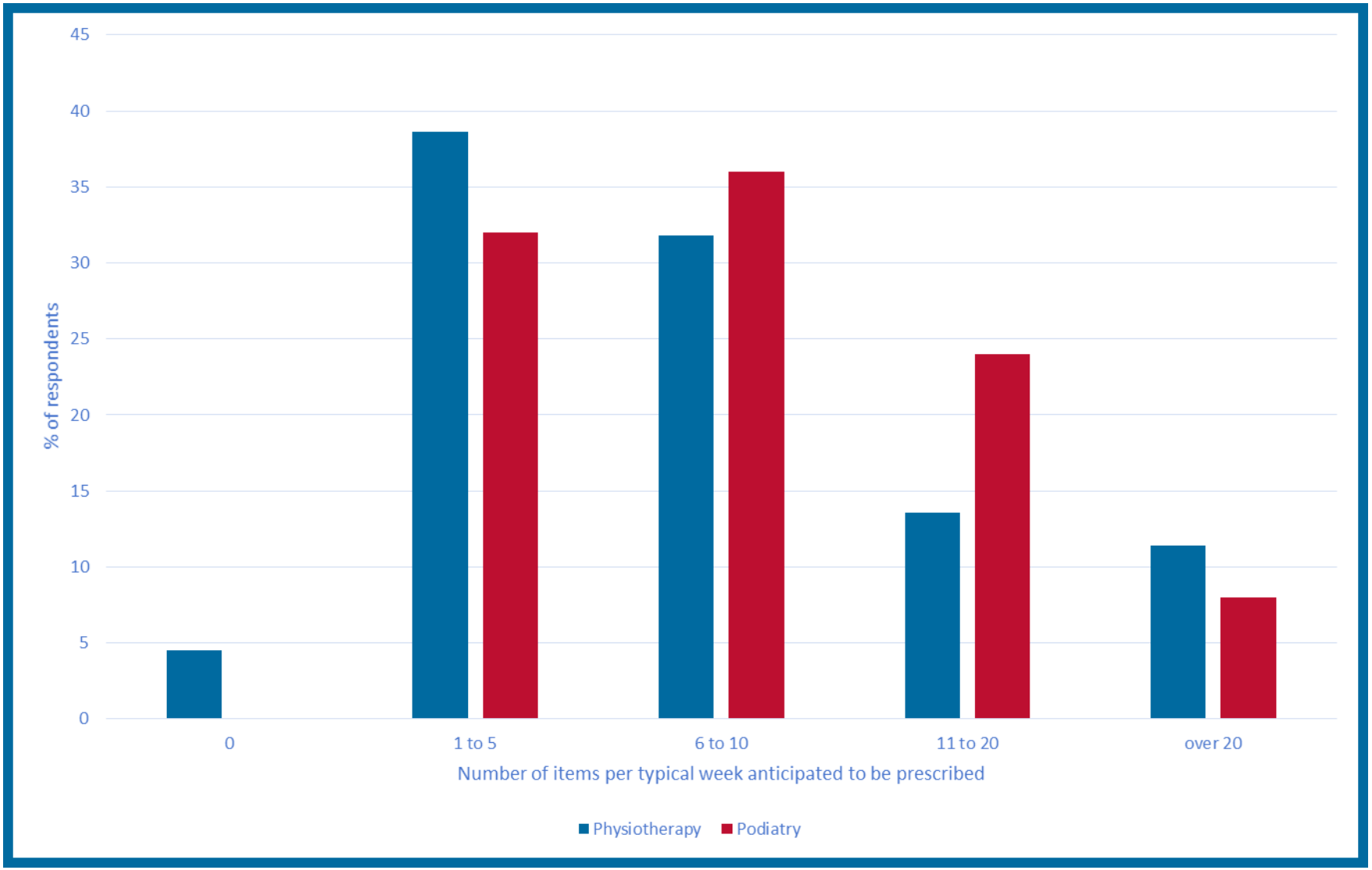
Participants

- Purposive sample: reminder every 3 months to 34 HEIs Respondents from 26 HEIs across England
- All 14 AHSN regions (50% London area)
- Sample size: Q1 :85, Q2: 39
- 48 (56.5%) Conversion course SP- IP
- Physiotherapists 66%, Podiatrists 34% in both Q1 & Q2

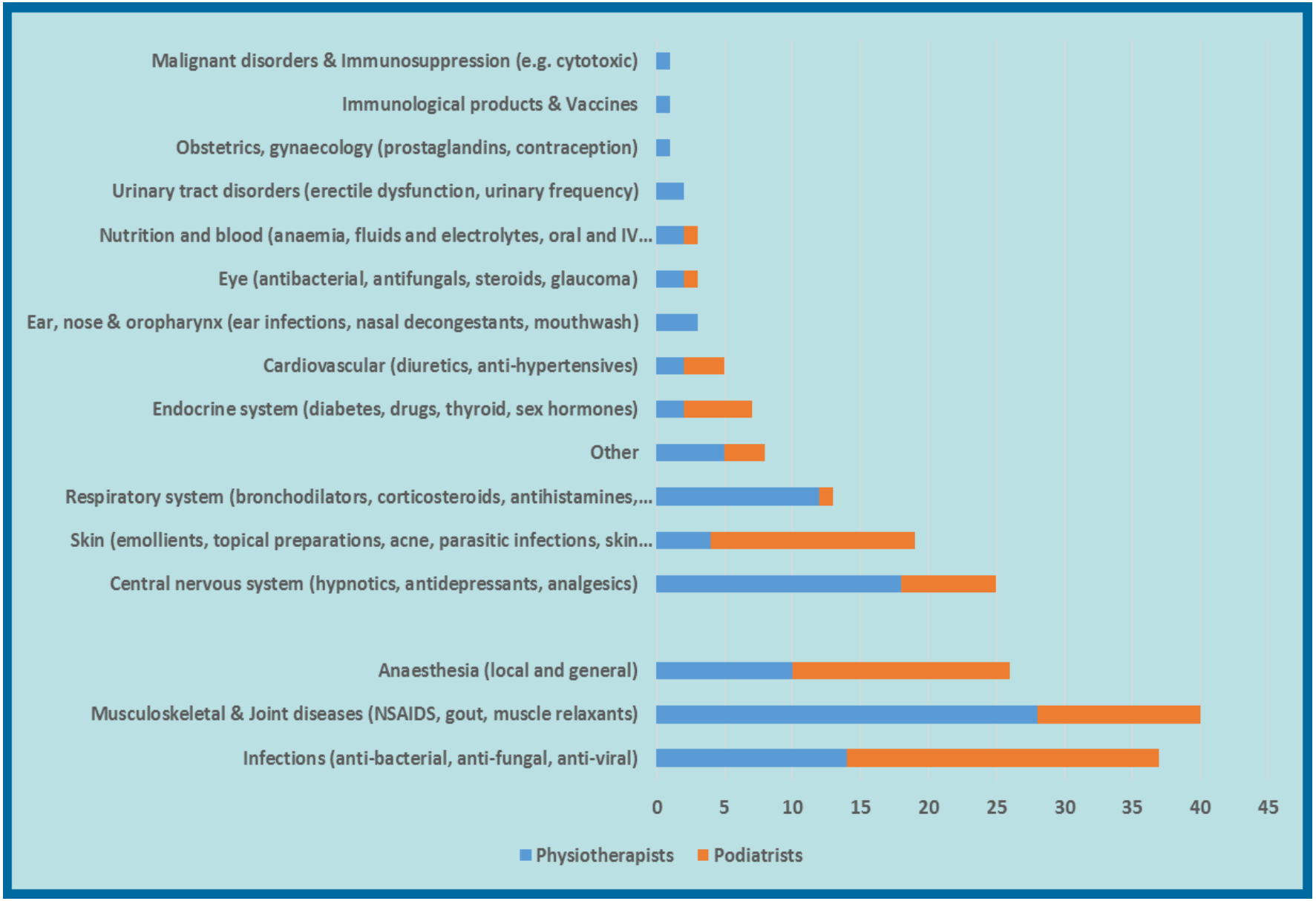
Describe PP-IP and service provision

- 61% Specialist roles, 17% general/ private, 12% consultant/ surgeon
- 58% Band 8a or higher
- 50% Higher degree (Masters or PhD)
- Specialist training: All had some, 68% M level module,
- Areas of service provision: PT & PO: MSK -36% Pain -11% ,
- High risk feet and surgery (PO only) Respiratory (PT only)
- Services provided: NHS in/out patients-57.6%, community clinics 19%

Intended Independent Prescribing



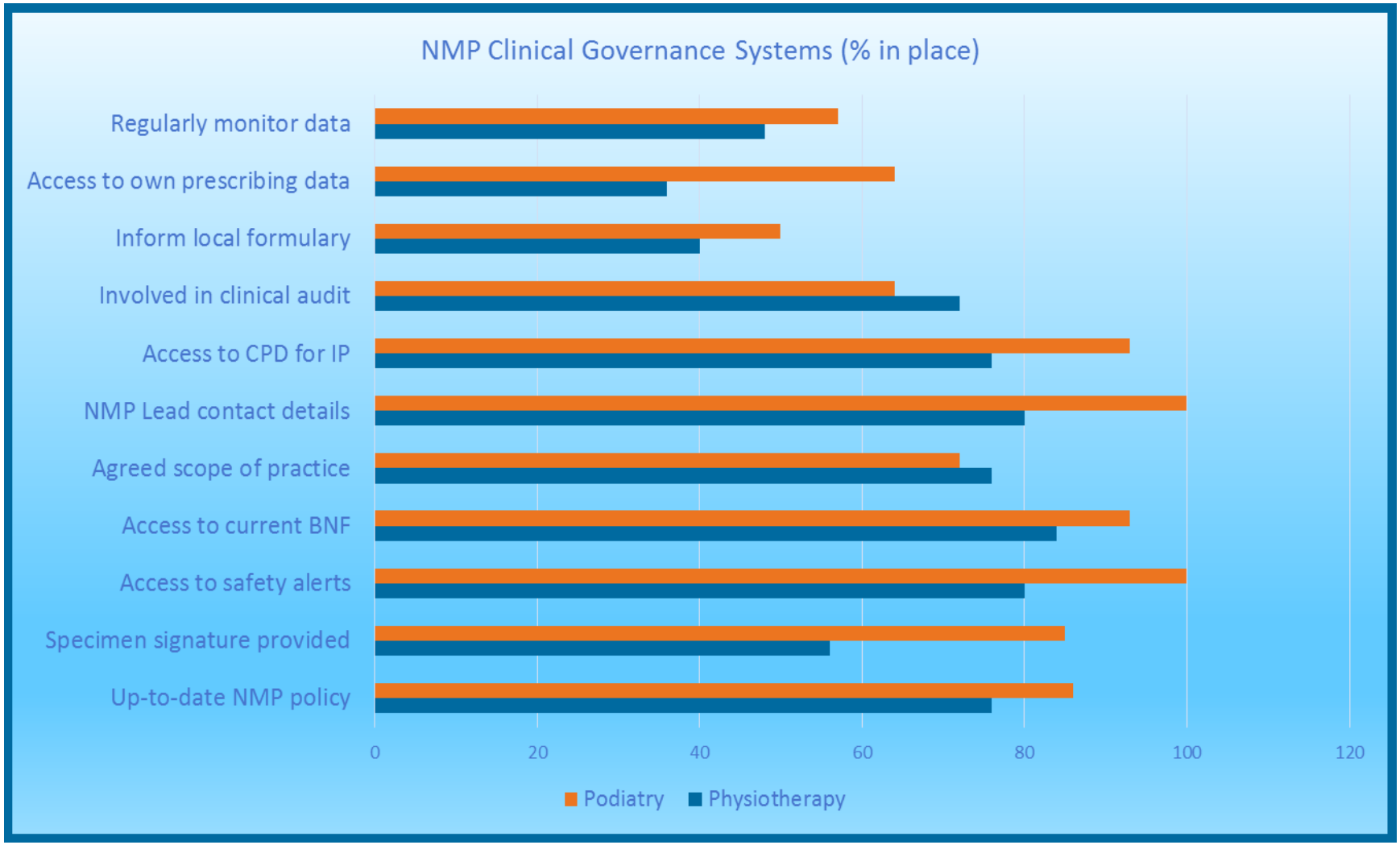
Therapy areas



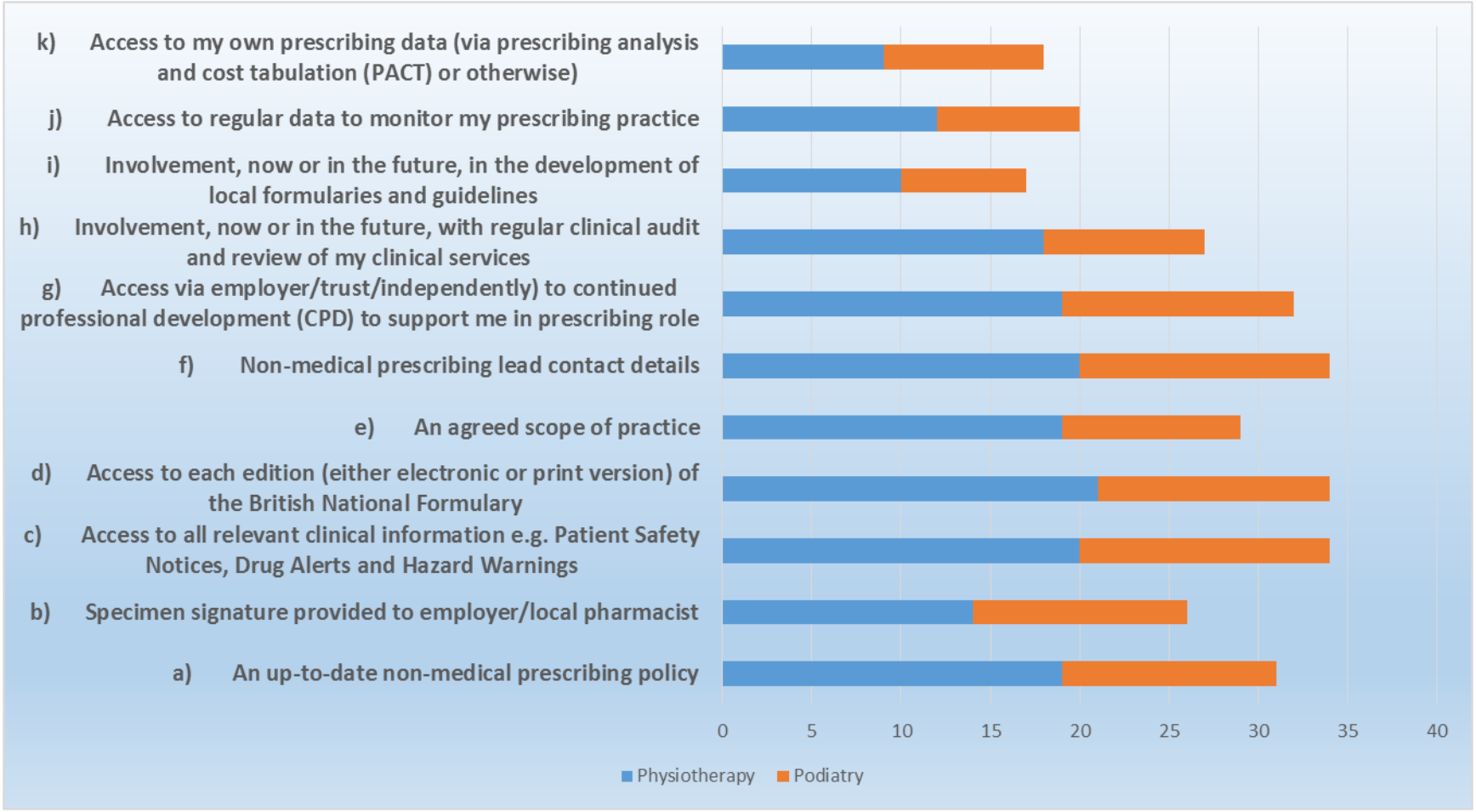
Q2: Preparation and support for IP role

- 80% completely or largely prepared to practice IP
- Nearly 80% largely or fully met learning objectives & personal learning needs
- Difficulties meeting learning outcomes (n=6) e.g. volume of work & required study, numeracy
- 75% adequate DMP and employer support

Clinical Governance Systems



NMP clinical governance systems



Facilitators and Barriers to PP-IP

Facilitators

- **Key motivators**: improve quality of patient care, access to medication, use of professional skills
- **Anticipated benefits**: reduce delays, streamlining services, increase choice, improved knowledge and job satisfaction
- **High involvement in MMA**: 84% supply/administer or prescribe a mean of 8.16 items per week. 94% make recommendations for medication

Barriers

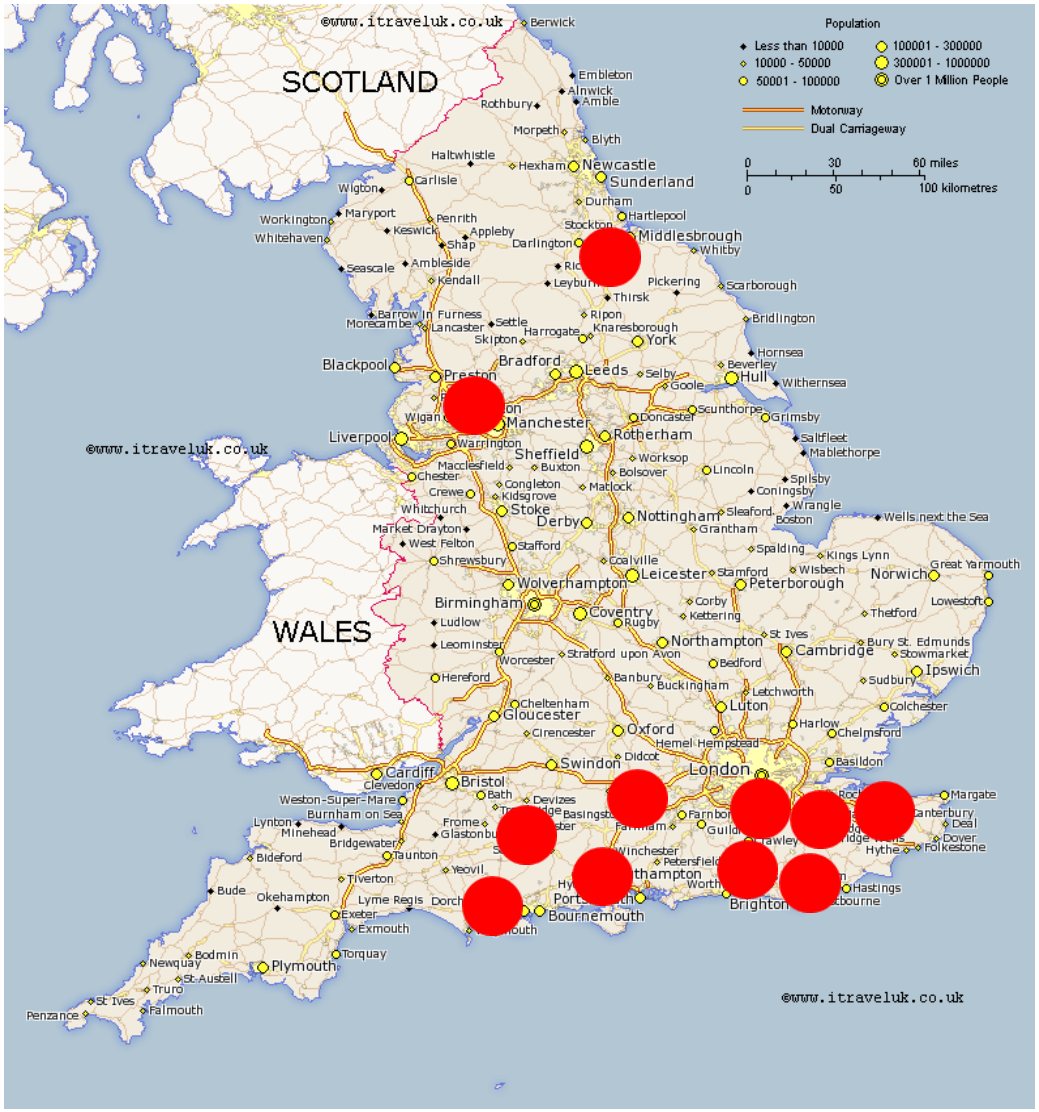
- Difficulty securing DMP support (13%)
- Lack of clinical governance systems for auditing own prescribing, specimen signatures

Documentary analysis

- Participants from PP-IP survey and case sites were asked to supply any documents relating to commissioning or service design involving independent prescribing
- Very few documents available

- **Result:** Little indication of any service level planning to include or embed PP-IP

Case Sites



- Total 14 case sites, 11 geographical locations
- Total 488 patients followed for 2 months
- 3 podiatrist & 4 physiotherapist PP-IPs
- 3 podiatrist & 4 physiotherapist PP-NPs

Case study

Data collection methods:

Interviews – Podiatrists, physiotherapists (n=14), wider team (n=11)

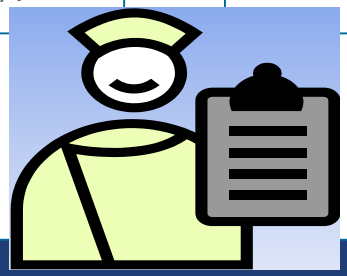
Observation – work sampling (n=2,720 single data collection point) and record of medicines management activities observed over 5 days (n-474 consultations)

Assessment of consultations – audio-recorded consultations (5 per site) assessed by independent experts (n=55)

- Assessment of prescriptions (n=15)

Audit – patient records (15 per site) audited for information on service use 2 months post consultation (n=153)

Questionnaires– patient satisfaction with services, information about medicines, quality of life (n=315, 2 month follow-up n=197)



Case Sites

Characteristics

- Podiatrists: private practice, diabetes, Consultant podiatric surgeons
- Physiotherapists: MSK, Orthopaedics, Consultants, ESPs, Clinical leads
  - Generally full time, average age 48, with Masters or PhD, Band 8a (average)

1. Observations

474 Consultations observed

Consultations

- Median length = 19 minutes (range 2 - 203)
- PT longer than PO consultations (22 V 16) and PT-IP longer than PT-NP (24 v 19, p= 0.001)
- 66% (n=313) Follow Up, 33% (n=159) Initial Routine, 0.02% Emergency (n=1)
- 69% (n=329) GP referred, 11% (n=55) Independent private sector, 8% (n=40) Self-referred

Phase 3

1. Observation diaries – Medicines Management Activity

- Medication was supplied, administered, prescribed, recommended or adjusted in 24% of consultations observed
- More activity recorded in PP-IP consultations (31.5%) than PP-NP (17%)

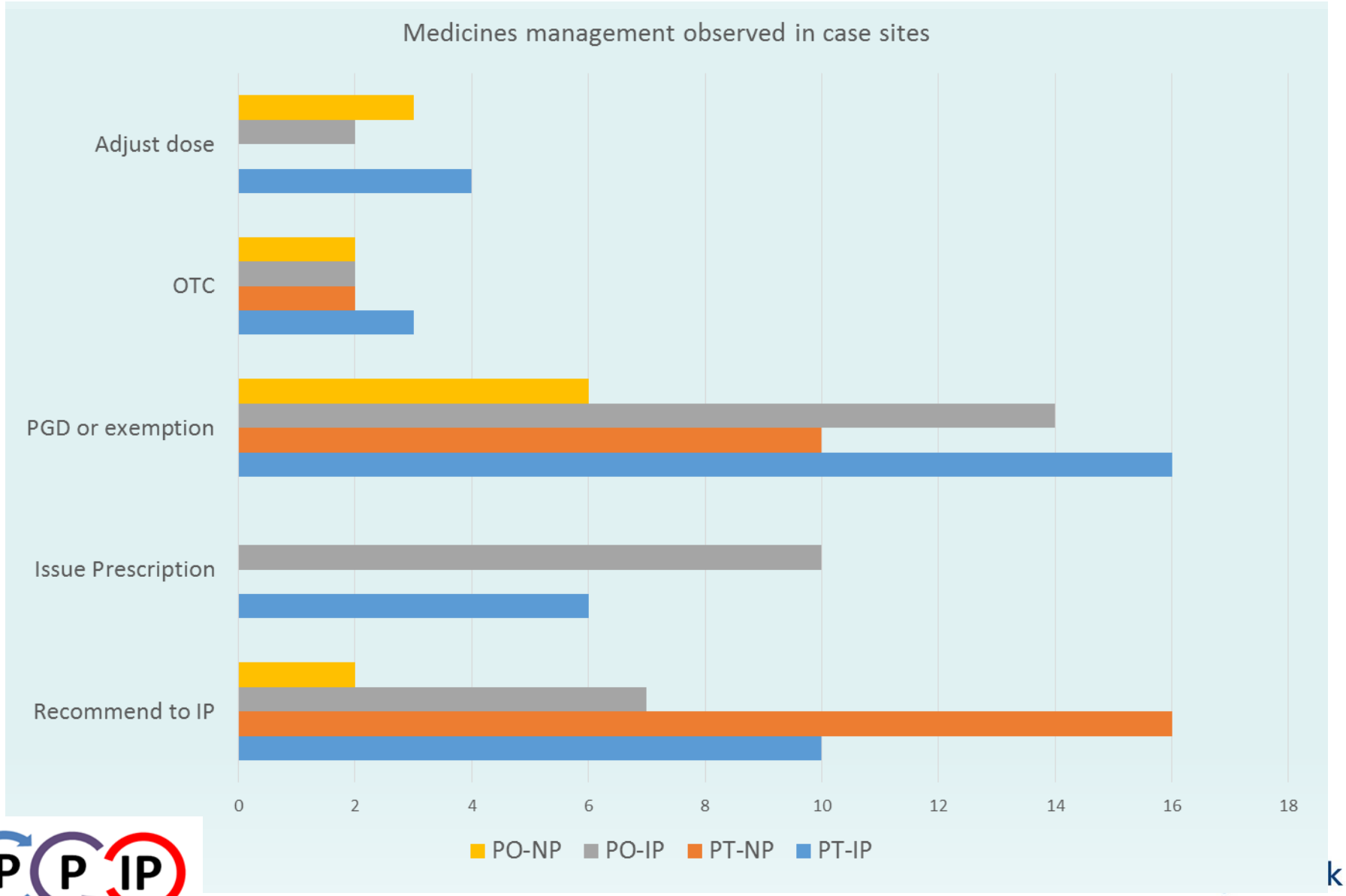
Physiotherapy

- Pain/movement control, including injection therapy, was the predominant activity in physiotherapy sites
- PT-IPs were more often observed to provide information to patients about how the medication works and when to take it than PT-NPs

Podiatry

- Antibiotics, antifungal/microbial topical creams, emollients and pain medication
- Medication information provision inconsistent, particularly if administered directly during consultation

Observation Diary



Phase 3

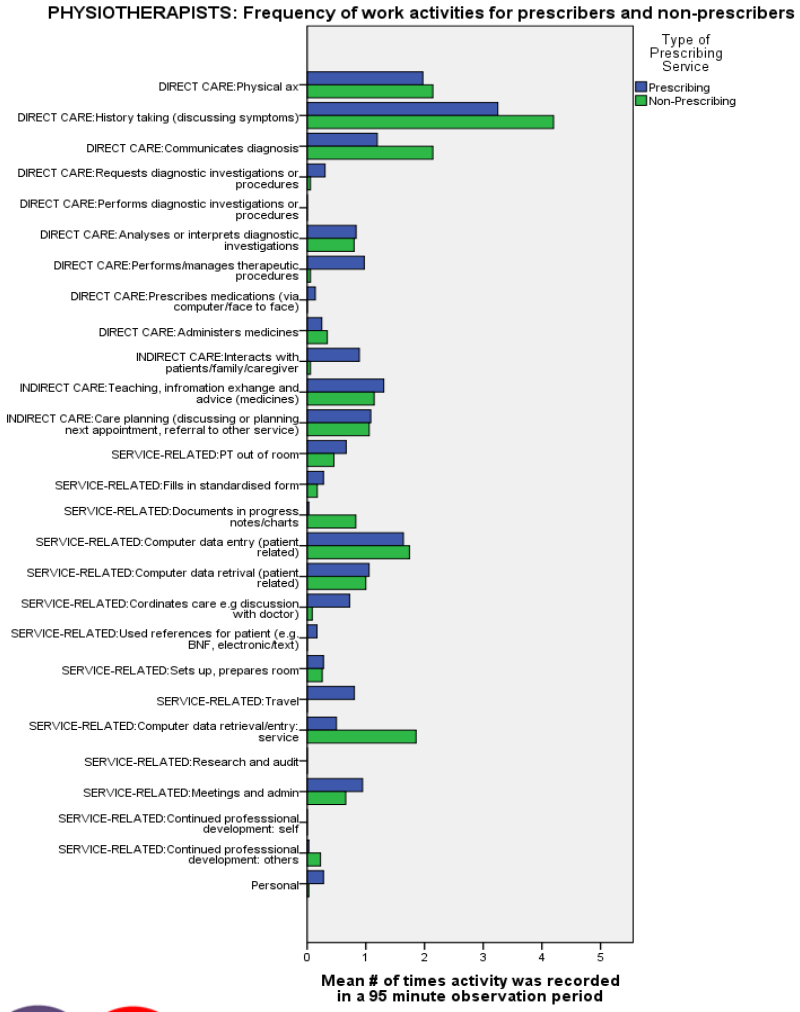
2. Work sampling

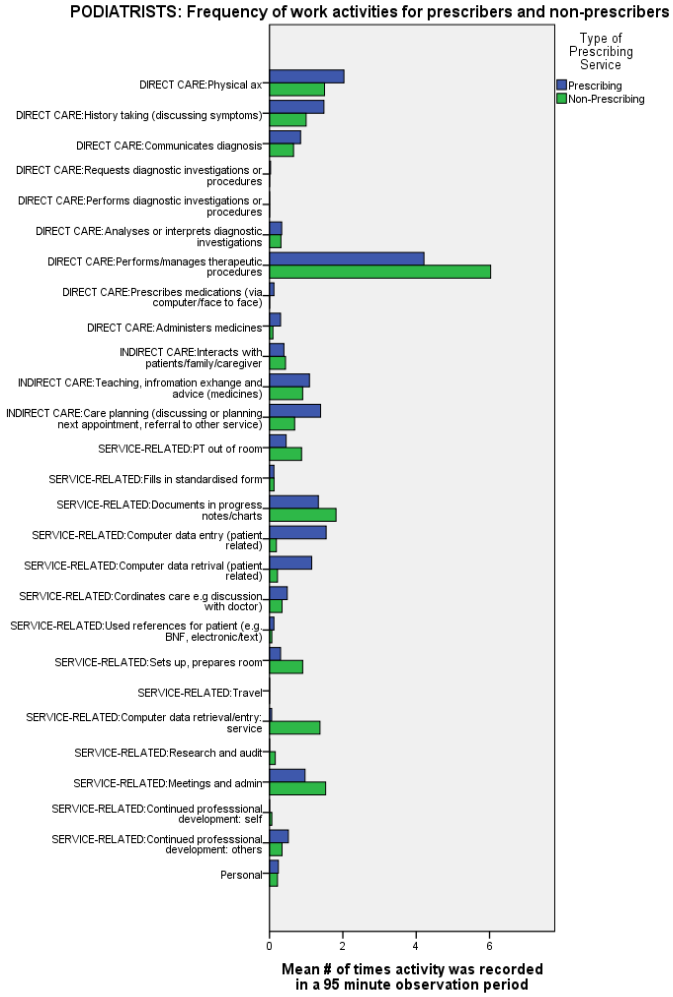
- **List of 23 possible activities**
  - direct care
  - indirect care
  - service related

Results

- **Podiatry**: IP provide more indirect care. PO-IP more involved in care planning and computer use during consultation, PO-NPs more active in providing treatment, room preparation and use computers outside of consultation.
- **Physiotherapy**: IP more involved in MMA and treatment, NPs more discussion with patients

Results – Work Sampling





Phase 3

3. Patient Questionnaire

- 315 patient questionnaires (PT 135, PO 180)
- Response rate: 67%

Key Findings: Satisfaction with services and care received

- PP-IP patients were more inclined to follow-advice given

Physiotherapy IP patients (compared to PT-NP)

- More satisfied with advice
- Able to understand treatment
- Felt treated as an individual

Podiatry IP patients more likely than PO-NP:

- Easy to make appointment
- Able to contact by phone
- Able to make emergency appointment

Phase 3

3. **Patient Questionnaire**

Key Findings: Advice and information about medicine

- 32% of patients received information about medicine from PPs on day of consultation
- PP-IP group more often received information about medicine

PT-IP patients more likely than PT-NP:

- Told when to take medicine
- How often to take medicine
- Intention to take medicine
- Easy to follow instruction about medicine

Views on Prescribing

- 81.5% agreed that PPs should be able to prescribe

Phase 3

3. **Patient Questionnaire - 2 month follow-up**

- N=197 (74% response rate)

Reported medicine management by patients of PPs

- 20% medication prescribed or recommended by the physiotherapist or podiatrist.
- 18 received a prescription on the day that reduced waiting time
- More MMA reported by patients of PP-IPs, including: prescribing, providing medication via PGD/exemption, recommendation to GP or to patient to buy over the counter, referral for diagnostic tests, and referrals to another practitioner.

Health outcomes

- Health related quality of life (EQ-5D) improved for patients in PP-IP and PP-NP groups between baseline and 2 month follow-up

4. Interviews Key Findings

Benefits: service efficiency, convenience of access, choice, knowledge, quality of information, professional reputation, scope for advanced roles

Plus:

- Role more aligned with patient expectation of specialist clinicians
- Resolve legislative 'grey areas' around MMA practice

- **Barriers**: access to medical records, lack of follow-up, time, budget, training costs, DMP, isolation, resistance.
- **Concerns**: medicalised role, increased responsibility, cost saving
- **No strategic planning**, but plans for the future

BUT:

Existing methods (PGDs & exemptions) are still more convenient for majority of patients and prescribing rates are low

Phase 3

5. Audio Consultations

- 55 Audio recorded consultations
- Each assessed independently by 2 clinicians

Key findings

- High level of disagreement between assessors
- More areas of concern identified in PP-NP consultations

Physiotherapy:

- No agreed areas of concern raised in PT-IP consultations
- PT-NP small number of concerns about **assessment and diagnosis** and to a les extent**, communication**

Podiatry:

- More agreed areas of concern identified overall
- Concerns related to both **Assessment and diagnosis** and **communication**

Phase 3

6. **Patient Record Audit**

153 patient records audited 2 months post consultation
69% female, mean age 58, range 18 -94

Key findings

- General quality and completeness mixed
- Only 60% included post consultation GP letter
- Variability of referral letters
- Only 30% recorded allergy status
- 64 patients referred to other services (mainly by physiotherapists) 60 patients accessed other healthcare within 2 months post consultation (e.g. hospital outpatients)

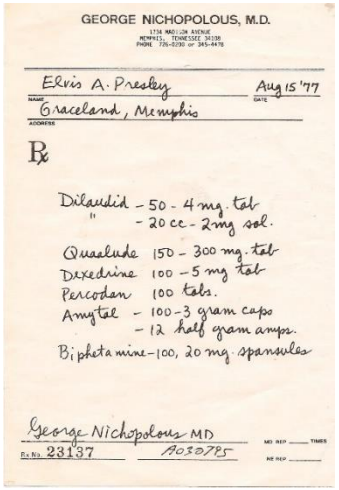
Phase 3

7. **Prescription audit**

- 15 prescriptions analysed (PT 6, PO 9) 4 sites

Key points

- Medications included antibiotics, NSAIDs, proton pump inhibitors and neuropathic medicines
- 100% written on appropriate form, used generic drug name, with instructions on timing/frequency and dosage
- Information missing: 60% (9) missed dose frequency in words, 2 missed quantity to be supplied.


GEORGE NICHOPOLOUS, M.D.

Elvis A. Presley Aug 15 '77

Graceland, Memphis

℞

Dilaudid – 50 – 4 mg. tab
" – 20 cc – 2mg sol.
Quaalude 150 – 300 mg. tab
Dexedrine 100 – 5 mg tab
Percodan 100 tabs.
Amytal – 100 – 3 gram caps
– 12 half gram amps.
Biphetamine – 100, 20 mg. spansules

George Nichopolous MD

Rx No. 23137 A030785

Phase 3: Economic analysis

Physiotherapy

- PT-IP consultations 6.8 minutes >PT-NP (p=0.0005) Based on band 8a, PT-IP is £7.95 more costly
- PT-IP's > discussion with colleagues per patient (p=0.0005)

Podiatry

- Based on band 8a, PO-IP consultations are £8.62 more costly than PO-NP
- PO-IP patients received >medications PO-NPs (p=0.001)
- PO-IPs requested > (29.2%) tests per patient PO-NPs (0) (p=0.0005)
- These aspects are more costly but lack detail by which to estimate costs

Unplanned treatment

- 4 instances of unplanned pain treatment (3 in NP sites)

Training

- Mean £686 conversion and £1598 for combined IP/SP course

Summary

Objective 1. Describe and classify services provided by PPIPs

- A mixed and varied pattern of service configuration and work activities were identified reflecting the diverse nature of care provided by PPs across England

Objective 2. Identify factors that inhibit/facilitate implementation of IP

- PPIP is acceptable to majority of patients
- Motivation for IP primarily driven by improving services
- Improvement to professional reputation, use of skills, legalising grey areas of practice and increasing job satisfaction important facilitators
- Course time commitment, availability of DMP, resistance and lack of prescribing budget are some of the barriers identified
- Lack of strategic planning for the implementation of IP within services

Objective 3. Evaluate contribution to patient experience

- Higher patient satisfaction with some aspects of services and information provided about medication. Improved service access for PO-IP patients.

Summary (2)

Objective 4. Identify MMA that most contribute to care outcomes

- IP use the most appropriate/convenient means to provide medication for patient, whether that is prescribing, PGD, exemption or recommendation

Objective 5. Assess quality, safety and appropriateness of PPIP

- High standard of prescription writing and few causes for concern raised in PPIP consultations compared to PP-NP consultations
- IPs provide > MMA and medicines information than PP-NPs
- More information could be provided to patients by podiatrists when administering medication
- Most clinical governance systems were reported to be in place with exception of access to prescribing data and means of auditing prescribing practice

Summary (3)

Objective 6. Evaluate impact on costs, quality, effectiveness and organisation of care

- PPIP consultations are more costly due to longer consultations, increased MMA, discussion with colleagues and referrals – however it is unclear if this is due to IP or service related factors

Objective 7. Explore prescribing models and resource implications

- Unable to complete micro level cost analysis or identify clear prescribing models

Objective 8. Evaluate educational programme

- High level of satisfaction with IP educational programme

Conclusions

- PPs working in specialised and advanced roles should be supported to adopt IP role
- More strategic approach to IP workforce planning
- More robust systems to capture data on medicines management activities
- Need to consider were benefits of PP-IP can be maximised in service delivery
- Full economic evaluation required
- Greater understanding of service user and carer perspective