



Final Comments

The next phase of the “Improving Pain Services across Scotland” project will aim to deliver the Core Outcome dataset for national measurement of chronic pain, which will extend across primary, secondary and tertiary services. Further development of the Quality Performance Indicators (QPIs) is planned; these QPIs must undergo a formal and rigorous consultation process. It is hoped that the QPIs will serve as benchmarks for service performance, enabling quick and effective comparisons across health boards. With common goals in place, this should lead to a more complete and cohesive picture of Pain Service performance at a national level.

Appendices

Appendix 1- NHS Tayside Pain Service



About the Service

Tayside Integrated Pain Service is a multi-disciplinary team of doctors, nurses, physiotherapists, clinical health psychologists, and pharmacists. The Pain Clinics are located across Tayside at Ninewells Hospital, Perth Royal Infirmary, and Stracathro Hospital. Specialist input into the management of chronic pain is offered. NHS Tayside provides a range of treatments which include Pain Management, Physical treatments, Drug therapy, Specialist Procedures, education and support for patients and families living with chronic pain.

Referrals are received from General Practitioners, hospital doctors, allied health professionals and nursing staff across Tayside. Tertiary referrals are also accepted. Once a patient is referred to the service they will receive a questionnaire to complete. Once completed and returned, the questionnaire and the referral ensure the patient is seen by the most appropriate member of the team.

In NHS Tayside clinicians have collected basic information from patients attending level 3 services since August 2014. Measures are based on previously proposed national core measures and include the EQ-5D, the HADS and the BPI, as well as indicators of the site and cause of pain. Data are entered on the MiDIS eHealth system and are available to all who have the relevant permissions. They can be used in planning individual care, but have not been analysed at group level.



1) Key Findings from NHS Tayside

Good Practice Points

1. EQ-5D scores are easily calculated through a configured Excel sheet, all individual items recorded.
2. Contains the responses for each individual item recorded on the BPI and the EQ-5D, not just totals.
3. Comprehensive overview of Pain (Type of Pain, Duration of Symptoms and Location).
4. In general, responses are nicely grouped, making it easier to analyse and quantify data e.g. Referral Source (Hospital, Doctor, Self).

Potential Areas of Improvement

1. No post-treatment outcome measure data for BPI or in the EQ-5D Excel database.
2. 2014 records contain only data from June-August, hence the low percentage (29.11%) of total patients recorded in MIDIS. Average for 2015-16 around 43% of patients recorded.
3. EQ-5D questionnaires with missing data are not inputted or recorded, albeit hard copies are filed. Data entry for EQ-5D ceased as of 14/02/2017.
4. Numerous data fields are rarely utilised: Outcome 3rd Sector Community; Discharge and NHS Speciality; TCPS (Tayside Chronic Pain Service) Procedure.

2) Clinician Questionnaire

12 members of staff in the NHS Tayside Pain Service have returned questionnaires (15 distributed).

Lack of time was regarded as the main barrier to inputting data.

9 members of staff knew that MIDIS and Topas were going to be replaced by Trak in the near future.

IT System Features (Rated 0-10)	Mean Rating	Standard Deviation
Speed	4.8	2.1
Interface	5.5	2.0
Dropdown	5.6	2.0
Free-text	5.7	2.1
Responsiveness	6.2	1.8

IT Issues	Number of Participants	Percentage of Participants
Lack of time	11	92%
Lack of clarity on usefulness/utility of the data	5	42%
Lack of consensus on data input responsibilities	4	33%
Poor Access to IT	2	17%



i) Additional Comments from Tayside Clinicians

“In Midis too many clicks to get to the correct form, the form itself is OK, I am sure tweaks are planned”.

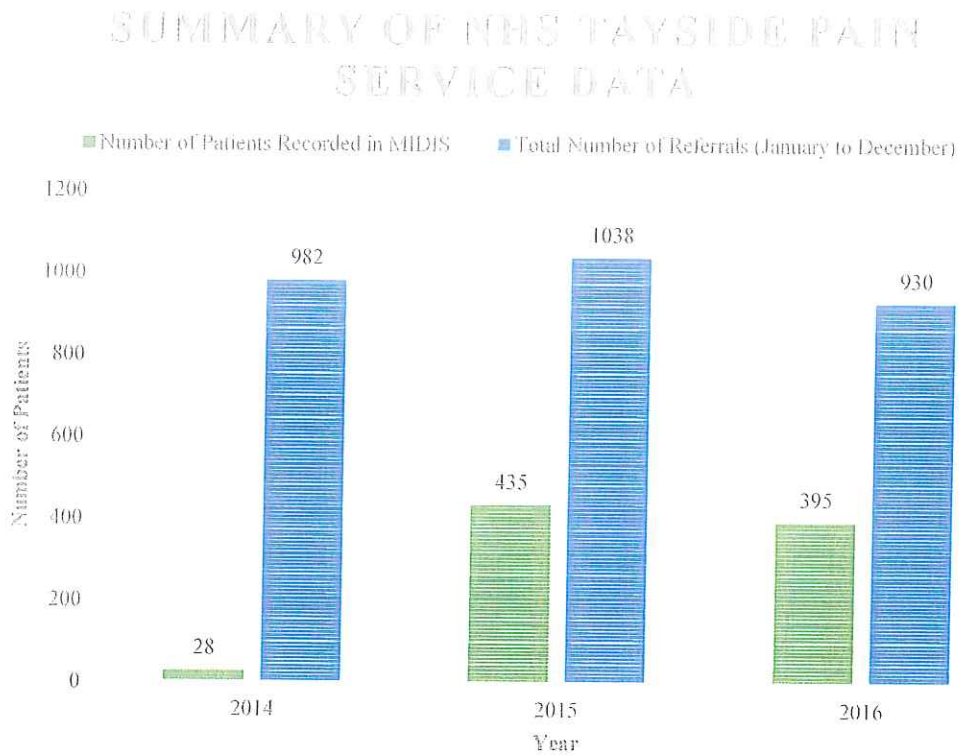
“Inclusion of pain service data is a recent addition to our system. We had planned to re-evaluate and develop further, based on the first year of its use. This hasn’t happened for various reasons, including the imminent arrival of a new computer system, and the absence for health reasons of one of the leaders of the project”.

“One of the biggest barriers is speed of the NHS computer and lack of dedicated time to provide data entry. Are clinicians the most appropriate people to carry out the data entry? This is difficult to answer as there is a clinician interpretation required, however, no time is built into the consultation for this. Regular feedback to clinicians is important to reinforce the rationale for ongoing data collection. The data fields should be relevant to the local service but also meet the national data requirements”.

“Cumbersome, competing with demand to run clinic on time. Lowest priority of all tasks required for out-patient clinic, new additional task, no reward or incentive, not monitored, more feedback needed”

3) Data Summary

Figure 1 - Overview of the Data



4) NHS Tayside Pain Service Data

Site of Pain (not mutually exclusive)	Number of Patients	Percentage of Recorded Patients
Low Back	262	30.5%
Widespread Pain	190	22.1%
Hip, Buttock, Groin or Thigh	79	9.2%
Knee or Foreleg	54	6.3%
Upper Back or Neck	47	5.5%
Shoulder or Upper Arm	38	4.4%
Foot/Ankle	36	4.2%
Abdomen (Non-Spinal)	33	3.9%
Head and Neck (Non-Spinal)	32	3.7%
Other	27	3.2%
Elbow or Forearm	21	2.5%
Pelvis (including gynaecological)	16	1.9%
Thorax (Non-Spinal)	13	1.5%

Duration of Symptoms	Number of Patients	Percentage of Recorded Patients
< 3 months	23	2.7%
3-6 months	67	7.8%
6-12 months	105	12.2%
1-2 years	213	24.8%
2-5 years	194	22.6%
5-10 years	211	24.6%
> 10 years		

Number of Pain Sites	Number of Patients	Percentage of Recorded Patients
1 site	258	30.1%
2 sites	156	18.2%
3 sites	95	11.1%
4 sites	35	4.1%
5 sites	13	1.5%



Pain Type	Number of Patients	Percentage of Recorded Patients
Mixed neuropathic/nociceptive	499	58.2%
Neuropathic	183	21.3%
Nociceptive - somatic	106	12.4%
Other	23	2.7%
Nociceptive - visceral	0	0%
CRPS	0	0%

Investigations	Number of Patients	Percentage of Recorded Patients
Blood test	0	0%
MRI	10	1.2%
X-Ray	0	0%

Management	First	Second	Third	Fourth
Acupuncture	6	17	19	14
Advice Only	7	3	1	2
Anticonvulsant	139	62	25	7
Antidepressant	83	69	29	12
Benzodiazepine	0	0	1	1
Hypnosis	0	0	1	0
List for Procedure	13	4	3	1
N/A	146	238	446	673
Non-Opioid Analgesic	5	6	7	4
NSAID	11	23	12	8
Other	6	10	9	2
Pain Management Programme	17	26	6	5
Physiotherapy	20	25	25	17
Psychology	4	8	6	8
Referral to Other Specialist	1	7	6	0
Relaxation	7	17	12	9
Self-Management	179	90	82	47
Strong Opioid Analgesic	9	9	5	4
Systemic L.A's	6	2	0	0
TENS	34	77	63	18
Topical Agents	154	146	79	15
Weak Opioid Analgesic	11	19	21	10



Employment Status	Number of Patients	Percentage of Recorded Patients
Employed	277	32.3%
Unemployed	254	29.6%
Retired	228	26.6%
Houseperson	52	6.1%
Student	23	2.7%
Registered Disabled	15	1.8%

Work Status	Number of Patients	Percentage of Recorded Patients
Absent from work due to health problem	234	27.3%
Retired	186	21.7%
Remains at work	128	15.0%
Remains at work with difficulty	112	13.1%
Other	75	8.8%
Absent from work due to another health problem	30	3.5%

Referral Source	Number of Patients	Percentage of Recorded Patients
GP	519	60.5%
Hospital Doctor	255	29.7%
AHP	57	6.6%
Nurse	14	1.6%
Other	12	1.4%
Self	0	0%

Brief Pain Inventory (BPI)						
Questions	Mean	SD	Minimum Score	Maximum Score	Outliers	Missing Data
Average Pain	7.0	1.7	0	10	0	217
General Activity	7.6	2.2	0	10	0	243
Mood	6.8	2.7	0	10	0	250
Walking Ability (Q9c)	7.0	3.0	0	10	0	246
Normal Work i.e. working outside the home and housework	7.7	2.3	0	10	0	250
Relations with Other People	5.7	3.2	0	10	0	252
Sleep	7.4	2.8	0	10	0	241
Enjoyment of Life	7.5	2.6	0	10	0	241

EQ-5D-5L Pre-Treatment Data (Data from Oct & Nov 2013 and Feb, Mar, Apr, May, Jun, Jul, Aug, Sept, Oct & Nov 2015) *One record from Oct 2013							
	Mobility	Self-Care	Usual Activities	Pain/Discomfort	Anxiety/Depression	EQ-5D-5L Health State	EQ-5D-5L Index
Median	3	2	3	4	2	Median	0.3
Mode	3	1	3	4	2	Mean	0.3
No. of patients	500	500	500	500	500		500

EQ-5D-5L Pre-Treatment Data (Data from Nov & Dec 2015 and Jan-Nov 2016)							
	Mobility	Self-Care	Usual Activities	Pain/Discomfort	Anxiety/Depression	EQ-5D-5L Health State	EQ-5D-5L Index
Median	3	2	3	4	2	Median	0.3
Mode	3	1	3	4	3	Mean	0.4
No. of patients	500	500	500	500	500		500

EQ-5D-5L Pre-Treatment Data (Data from Nov-Dec 2016 and Jan-Feb 2017) *One record from Feb 2017							
	Mobility	Self-Care	Usual Activities	Pain/Discomfort	Anxiety/Depression	EQ-5D-5L Health State	EQ-5D-5L Index
Median	3	2	3	4	2.5	Median	0.3
Mode	2	1	3	4	3	Mean	0.4
No. of patients	112	112	112	112	112		112

*Incomplete EQ-5D-5L forms were not inputted into the database

5) Conclusions

Regarding the number of patient recordings (29.08% of total patients, 42% for 2015 and 2016) the clinicians mentioned that the focus was on inputting new patients into MIDIS. It is difficult to define when a patient has a review (may have multiple reviews leading to messy data). There is also no definitive 'discharge' in the Tayside Pain Service as they use an open appointment system where patients have a 6 month window to request another appointment.

A decision has been taken to prioritise certain questions of the BPI (Q5 and Q9a-f) as other questions are already covered in their standard questionnaire. This can present difficulties when analysing the data (cannot calculate a score for the patient). Inputting EQ-5D-5L scores is the responsibility of administrator, input has ceased as of 14/2/17 as EQ-5D-5L scores were only collected at the initial appointment resulting in data that was not clinically meaningful (could not assess whether the patient's quality of life was improving). The EQ-5D-5L data does not appear to be linked to the rest of the patient's records and is not administered at follow-up reducing the usefulness of the data. The focus of data collection, in general, is on the initial assessment, not follow-up. The poor completion rate of the data, shown in Figure 1, clearly shows that there are barriers to data entry for clinicians. This may be related to the speed of the systems used and the lack of clarity concerning the usefulness of the data, referenced in the clinician questionnaire.

Appendix 2 - NHS Fife Integrated Pain Management Service

About the Service

This service comprises of RIVERS which is a secondary care pain management programme in Dunfermline, Glenrothes and Leven and a Secondary Care Pain Management Clinic based at Queen Margaret Hospital. Once a referral is received the patient is sent a questionnaire to assess their pain and its impact. Assistance is offered to complete this questionnaire but an appointment will not be arranged if the questionnaire is not returned. The service guarantees a first appointment by 9 weeks from initial referral and treatment is guaranteed by 18 weeks after the appointment.

NHS Fife collect detailed measures from all patients including the Pain Self Efficacy Questionnaire (PSEQ), General Anxiety Disorder Questionnaire (GAD-7), Patient Health Questionnaire (PHQ-9), and are entered and stored electronically using a service designed database system. They have been used occasionally to audit service provision, but are mainly used in individual patient care.

1) Key Findings from NHS Fife

Good Practice Points

1. Follow-up data was collected for each outcome measure which was generally well completed (apart from the Visual Analogue Scale).
2. Provides a well-rounded overview of the patient (from their referral to their outcomes).
3. Separate columns for Body Part, Outcome and Onwards Referrals with True/False answers led to a full completion rate for these sections.

Potential Areas of Improvement

1. Only total score is listed for each outcome measure, there is no way of determining how missing scores were dealt with.
2. For many columns there are no standard answer lists leading to several different answers which have the same or similar meaning and data that cannot be coded.
3. Physiotherapy outcome did not appear to be used as there was missing data at a rate of 99.8%.
4. Referrals to secondary care departments had a considerable amount of missing data (29%), also the free-text feature led to confusing data analysis (some entries were just phone numbers or names of clinicians).
5. The Visual Analogue Scale (VAS) had a high percentage of missing data at pre-assessment (59%) and at follow-up (79%).
6. Pain Type and Employment/Work Status are not recorded.

2) Clinician Questionnaire

In NHS Fife, 13 members of staff returned questionnaires (22 distributed). Lack of clarity on the usefulness/utility of the data was a main barrier to inputting the data itself. 9 members of staff knew that Oasis was going to be replaced by Trak and/or Tiara in the near future.

IT System Features (Rated 0-10)	Mean Rating	Standard Deviation
Speed	4.2	2.1
Dropdown	4.6	2.0
Interface	4.7	1.7
Free-text	4.6	2.3
Responsiveness	5.3	2.2

IT Issues	Number of Participants	Percentage of Participants
Lack of clarity on usefulness/utility of the data	9	69%
Lack of time	6	46%
Poor access to IT	4	33%
Lack of consensus on data input responsibilities	1	8%

i) Additional Comments from Fife Clinicians

“Pain Management Psychology in Fife is organisationally situated in the Psychology Dept. The whole dept. has recently moved from an old fashioned excel database to TIARA. It is therefore early days at present to judge how effective this new system is for us. Primarily this shift has occurred to allow better reporting for psychological therapies HEAT Target, but Tiara does have capacity to collect outcome data. It is not clear to me how work progressing with the National Pain Group to look at outcome measures will map onto work being completed nationally in mental health around outcomes measures”.



3) NHS Fife Integrated Pain Management Service Data

Age	Number of Patients
17-24	32
25-34	216
35-44	344
45-64	1057
65+	426
Blank	0

Body Part	Number of Patients	Percentage of Patients
Chronic Low Back Pain	831	39.9%
Fibromyalgia	288	13.8%
Neck/Shoulders	216	10.4%
Knees	154	7.4%
Widespread Pain	145	7.0%
Hips	131	6.3%
Ankles/Feet	94	4.5%
Spinal	76	3.7%
Abdominal	67	3.2%
Osteoarthritis	66	3.2%
Pelvic	43	2.1%
Chronic Fatigue	39	1.9%
Head/Facial	32	1.6%
CRPS	27	1.3%
Headaches	27	1.3%

Pain Duration	Number of Participants	Percentage of Participants
1-2 months	119	5.7%
3-5 months	54	2.6%
6-12 months	102	4.9%
1-2 years	213	10.2%
3-5 years	357	17.1%
6-10 years	172	8.3%
10-20 years	367	17.6%
20-30 years	66	3.2%
30-40 years	16	0.8%
40-50 years	29	1.4%
Unable to Code	6	0.3%
Missing Data	460	22.1%

Referral By (Profession)	Number of Patients	Percentage of Recorded Patients
General Practitioner (Referral Management Services)	1413	67.8%
Consultant	310	14.9%
Physiotherapy	148	7.1%
Specialist Registrar/ Staff Grade/ Clinical Fellow/ Non-specified Medic	137	6.6%
Orthopaedic Practitioner	20	1.0%
Clinical Psychology	13	0.6%
Nurse Practitioner	11	0.5%
Non-Specific Referral (Regional Treatment Centres)	●	■
Occupational Therapy	●	■
FY1/2	●	■
Mental Health Services	●	■
Pain Services	●	■
Dietician	●	■
Missing Data	4	0.2%



Physiotherapy Outcome	Number of Patients
Improved	●
Maintained	●
Unknown	●
Missing Data	■

Secondary Care Department	Number of Patients
General Practice	808
Unknown (Phone Number or Dep ref no. only)	355
Orthopaedics	90
Rheumatology	61
Neurology	26
Clinic (Miscellaneous)	22
Physiotherapy	21
Obstetrician & Gynaecology	●
Gastroenterologist	●
Urology	●
General Surgery	●
Anaesthesia & Pain	●
Vascular Surgery	●
Psychology	●
Psychiatry	●
Renal	●
Missing Data	594

Onward Referrals	Number of Patients	Percentage of Patients Recorded
Physio 1-2-1 Referral	124	6.0%
Joint Assessment	21	1.0%
Psychology 1-2-1 Referral	11	0.5%
OT Referral	●	■
Missing Data	0	0%

Outcome	Number of Patients	Percentage of Recorded Patients
Triaged to Secondary Care	234	11.2%
Triaged to RIVERS	377	18.1%
Attended Consultant's Appointment	214	10.3%
Programme Completed	199	9.6%

Visual Analogue Scale (VAS)				
SCORE	Pre-Assessment (Best)	Pre-Assessment (Worst)	Follow-Up (Best)	Follow-Up (Worst)
Mean	3.5	8.8	3.1	7.7
Minimum	0	0	0	0
Maximum	10	10	9	10
SD	2.0	1.5	1.8	1.8
Outliers	5	4	2	1
Missing Data	1230	1227	1647	1647

Pain Self-Efficacy Questionnaire (PSEQ)		
SCORE	Initial Assessment	Follow-Up Assessment
Mean	20.3	7.5
Minimum	0	0
Maximum	60	60
SD	12.9	15.0
Outliers	9	2
Missing Data	0	2