



Prescribing Data in General Practice Demonstration (PDGPD) Project

Information for practice recruitment

August/September 2009

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1. About the PDGPD Project

This information package contains details about the Prescribing Data in General Practice Demonstration (PDGPD) project including the evaluation component. This information is designed to help Project Facilitators to recruit the allocated number of practices for their Division. It is important that Divisions recruit the allocated number of practices to ensure that the findings of the evaluation are based on adequate data collected from the practices.

The PDGPD Project offers a new way for GPs to use their patient data for improving patient care. The project builds on similar quality improvement activities in Australia and overseas. The quality improvement activity allows GPs to use their own prescribing data for systematic review of patient management and for peer comparison. A data extraction software tool is used to extract data for clinical indicators. The clinical indicators were developed from evidence-based best practice guidelines.

The demonstration project focuses on two clinical areas — hypertension and chronic heart failure. The data extraction tool supplies GPs with immediate feedback on their prescribing in these two patient groups, identifying individual patients who may be receiving suboptimal treatment for review. Peer group discussions with a trained Project Facilitator will explore practice data and clinical issues. GPs will be able to compare their prescribing data to that of their peers in the practice, in the division and nationally. Regular discussion and analysis of data will enable practices to track their progress and plan further improvements. These continuous cycles of patient review, data analysis and implementing practice improvements are designed to improve patient outcomes and embed quality improvement in practices.

Why use a data extraction tool?

- Many GPs are either unaware of how to search their patient data for useful clinical information, or find that the in-built search tools in the clinical software are inflexible, unreliable and difficult to use.
- Third-party data extraction tools such as the Canning tool allow practices to perform tailored and complex searches with ease.
- Data extraction tools can identify patients at risk of poorer outcomes by name so that GPs can intervene.
- The Canning tool also saves the search results over time, allowing practices to track their progress.

Why were the indicators chosen?

The searches built into the Canning tool for this project are evidence-based clinical indicators for hypertension and chronic heart failure. The indicators were chosen because:

- there is strong evidence that the recommended practices improve patient outcomes
- the literature shows significant gaps between recommended and actual practices
- GPs have direct influence over the results by making changes to patient management
- the data required can be easily and reliably extracted from GP clinical software
- collectively the indicators in each topic support reflection on the management of each condition and the quality of care being provided.

Why was hypertension and chronic heart failure chosen for the project?

Despite the high risk of morbidity and mortality associated with chronic heart failure and hypertension, there is evidence to confirm that the management of these patients is suboptimal and treatment recommendations and clinical guidelines are not always followed.¹⁻⁵

In Australia, less than half of heart failure patients admitted to one of three hospitals in Tasmania were being treated with target doses of the recommended therapy.¹ Among heart failure patients attending general practice, Krum et al found under-prescribing both in terms of the number receiving the recommended drugs and dosage level.³

Holmes et al found that among newly diagnosed hypertensive patients with no co-morbidities, only 50% were receiving first-line recommended therapy.² The consequences of suboptimal care for these conditions include increased hospitalisation, higher mortality, greater symptom severity and increased costs to the health care system.⁵⁻⁷

The PDGPD project aims to improve the management of patients with chronic heart failure and hypertension in the community setting to promote better health outcomes for patients with these conditions. It is envisaged that outcomes from the project will have a significant positive impact on patient management and outcomes.

Why was this quality improvement activity chosen?

Similar quality improvement activities involving feedback of prescribing data have been shown to improve patient outcomes in these two clinical areas. The evidence also shows that activities involving multiple types of interventions are generally more effective than those involving only one type of intervention such as data feedback. The activity developed for this project involves:

- prescribing data feedback
- peer comparison
- facilitated group discussion
- clinician reminders and
- continuous quality improvement cycles.

Will the project be expanded later?

For the demonstration project, only Medical Director and the Canning data extraction tool software are being used. There are plans for other software systems to be included at a later date and the activity may be integrated into core NPS programs in the future depending on the results of the evaluation.

It is likely that general practice activities such as this will become more common in the future given the current shift towards electronic health records and emphasis on quality and safety of patient care.

More information

Please email the NPS PDGPD Project team on dataprescribing@nps.org.au or contact Dr Michelle Koo.
Tel: (02) 8217 8700.

2. PDGPD Project evaluation

Why do an evaluation?

This project brings together a range of quality improvement activities. Some of these build on evidence-based educational activities used by NPS previously, others are new and the evidence for their impact alone or in conjunction with other activities is limited.

It is important that a rigorous evaluation is conducted to better understand the impact of this suite of quality improvement activities on patient management and clinical outcomes and its acceptability and sustainability in the Australian general practice setting. Having an evidence base for such activities would be invaluable in gaining government support and uptake by practitioners of this and similar quality improvement activities. However, demands on funding providers and GPs are many. If we are to ask both these groups to make considerable financial and time investments in participating in activities such as the PDGPD project, it is important to have evidence to demonstrate their efficacy. Further, that evidence must be based on sound methodology in order to be reliable and valid.

Overview of the evaluation

The evaluation will use a range of approaches to investigate the impact, acceptability and sustainability of the quality improvement activity in general practice. The evaluation can be separated into two parts. The **first part of the evaluation** will assess the impact of the activity and will involve a pragmatic cluster randomised controlled trial with three arms. At recruitment, each practice will be randomly assigned to one of the three arms:

1. First topic (chronic heart failure): The practice will undertake chronic heart failure as the first topic, then six months later undertake hypertension as the second topic
2. First topic (hypertension): The practice will undertake hypertension as the first topic, then six months later undertake chronic heart failure as the second topic
3. Wait-control: Practices will wait 6 months before beginning the project and start one of the topics at this time, and they will undertake their second topic at 12 months.

Note:

- a. Having a wait-control arm is important as it allows us to best (although not perfectly) isolate the effect of participating in the PDGPD Project quality improvement activity by having data from comparable practices subjected to the same conditions/environment as those first participating in the activity.
- b. Practices cannot change their assignment.
- c. Wait-control practices will be eligible for the same incentives and benefits as the practices in the other two arms of the trial.

De-identified patient and practice evaluation data will be collected via the Canning data extraction tool and sent to NPS. All data will be transferred and stored securely. This data will be used to assess the impact of the quality improvement activity using a number of indicators related to prescribing practice and patient outcomes.

The **second part of the evaluation** will assess the acceptability and sustainability of the quality improvement activity. This stage will use de-briefing sessions, focus groups, interviews and a survey of GPs to monitor the progress of the project (process evaluation) and explore the attitudes of participating practice staff and Project Facilitators towards the activity. It will also assess the willingness of staff and Project Facilitators to be involved in future quality improvement activities.

The role of the Project Facilitator in the evaluation of the project

The Project Facilitator is a very important member of the project team. As well as helping to implement the activity, Project Facilitators will assist with a range of evaluation processes.

Project Facilitators will:

- Visit each practice and recruit the practice to be involved in the project and the evaluation. This will include getting consent from the practice principals and individual participating GPs. A formal process of consent is required with GPs being asked to read and sign a formal project information sheet and consent form.
- Enrol the practice in the project. At this time, the practice will be randomly assigned to one of the three arms of the study.
- Inform the practices about their allocation to one of the three study arms. Practices allocated to the First topic (chronic heart failure) and First topic (hypertension) arms will start the project once Project

Facilitator training and consent forms have been completed. Practices randomised to the wait-control arm will receive the quality improvement activity including the installation of the Canning Tool six months after practices in the other two arms.

- Collect data about the practice and participating GPs using a specially designed data collection form (Some of this information will be input into the Canning Evaluation tool).
- Coordinate installation of Canning data extraction tool in the practice and training of practice staff to use the tool to extract the indicator, feedback and evaluation data.
- Support practices in sending evaluation data to NPS via Canning data extraction tool at baseline, 3, 6, 9, 12, 18 and 24 months after the project start.
- Participate in debriefing telephone sessions twice over the life of the project. The debriefing sessions will be held at 3 months and 12 months after implementation of the project in the Divisions. The purpose of the de-briefing sessions is to understand Project Facilitator's views about the quality of training received prior to commencement of the activity, their role in the project, barriers and enablers to successful intervention of the project and how to make such projects sustainable in the future.
- Assist with recruitment of practice staff in evaluation interviews and focus groups.

Further information about the evaluation

If you would like to discuss any aspects of the evaluation, please contact Dr Shantala Mohan (dataprescribing@nps.org.au or 02 8217 8782).

References

1. Boyles PJ, Peterson GM, Blease MD, Vial JH. Undertreatment of congestive heart failure in an Australian setting. *Journal of Clinical Pharmacy and Therapeutics* 2004;29:15-22.
2. Holmes JS, Shevrin M, Goldman B, Share D, Michigan BCaBSO. Translating Research into Practice: Are Physicians Following Evidence-Based Guidelines in the Treatment of Hypertension? *Medical Care Research and Review* 2004;61(4):453-473.
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5. Nelson MR, McNeil JJ, Peeters A, Reid CM, Krum H. PBS/RPBS cost implications of trends and guideline recommendations in the pharmacological management of hypertension in Australia, 1994-1998. *MJA* 2001;174:565-568.
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3. Targeting practices for recruitment

What sort of practices can participate?

Most general practices would be able to participate in the activity. Practices must be willing to spend some time improving their data quality, to transmit their data to NPS and to participate in all aspects of the evaluation. It is important that Divisions recruit the allocated number of practices to ensure that the findings of the evaluation are based on adequate data collected from the practices.

The most successful types of practices involved in the activity will not be known until the evaluation is completed. Practices with the following characteristics are likely to be able to implement the activity well:

- previous experience with this type of quality improvement activity e.g. with the Australian Primary Care Collaboratives (APCC) program
- previous experience with data extraction tools
- interest in using their patient data for improving the quality of patient care
- team approach to providing patient care
- regular clinical meetings with GPs to discuss patient management
- at least one GP committed to the activity and able to motivate other GPs in the practice
- Practice Nurse or Practice Manager able to influence or direct GPs' involvement with the activity
- good rapport between practice staff and Project Facilitators

Practices that should **not** be recruited are those that:

- have a dial-up internet connection (broadband connection is fine)
- record significant amounts of clinical data in paper records instead of their clinical software
- are definitely going to switch from Medical Director to another clinical software system (i.e. not MD2 or MD3) before April 2010
- are unwilling to participate in the evaluation of the project including being randomised to a study arm and transferring de-identified encrypted data to NPS.

What sort of data cleaning does the activity involve?

One of the goals of the activity is to improve the quality of data in electronic patient records. Calculation of the clinical indicators in the Canning tool relies on data such as date of birth, diagnoses, prescriptions and blood pressures being recorded in the correct place in the patient record in Medical Director.

If this information is not always recorded in the correct place, it will need to be entered as part of data cleaning. Practices should **not** be excluded from participating because they don't record all of this information. It is expected that many practices will not be entering this information correctly at the beginning of the activity. Data cleaning could involve:

- entering correct dates of birth
- marking patient records as inactive or deceased i.e. archiving patient records – practices that already do this regularly will have less data cleaning to do
- finding patients with hypertension or chronic heart failure and recording the diagnosis correctly – there are extra searches built into the Canning tool to help with this
- updating list of current prescriptions
- entering blood pressures in one of the 3 correct fields

How much time will be involved in data cleaning and other tasks?

The time required for data cleaning will depend on the size of the practice and how much of the above information is already recorded. Depending on practice policies, many of the data cleaning tasks can be done by practice staff other than GPs. Non-GP staff can re-enter diagnoses and blood pressures into the correct places, archive patients, recall patients and enter reminders into the patient records.

GPs will need to spend some time (probably no more than a few hours) at the beginning of the activity reviewing lists of patients identified by the Canning tool as potentially having hypertension or chronic heart failure. After this case-finding phase, the main tasks for GPs will be in attending clinical meetings, identifying patients for recall, reviewing these patients, and updating their records as part of usual practice. The extra time taken will depend on the number of patients to be recalled.

4. Selling the activity to practices

The PDGPD quality improvement activity has been designed to fit into everyday practice and cause minimal disruption to participating practices. Practice staff do not have to attend training outside the practice and clinical discussions take place within the practice at a time that suits the practice. The staff have the support and expertise of Project Facilitators that visit the practice and guide them through the activity.

Participating in this activity may be less onerous for practices than other quality improvement activities. Practices are not required to submit detailed plans to NPS. Data collection and submission occurs automatically via the Canning data extraction tool, so there are no patient data forms to be filled out.

What are the financial benefits?

The financial benefits of participating in the quality improvement activity are as previously described:

- Divisions can allocate up to \$500 (or \$200 for solo practices) to each practice to compensate for time taken for data cleaning tasks
- Completing a clinical audit cycle will qualify as an audit activity for QPI/PIP payment to the practice for each topic undertaken
- Patient fee-for-service where applicable
- Review of patients identified in this activity may contribute to requirements for care plans.

What are the other benefits?

Other benefits to participating practices include:

Improved patient care

- Identify and address gaps in the management of patients with chronic heart failure or hypertension
- Improve therapy of patients at risk of higher morbidity and mortality
- Target specific groups of high-risk patients across the practice population
- Systematically review patient care and reflect on current practices
- Create a practice register of chronic heart failure and hypertension patients and monitor their management over time
- Build capacity for improvement in the practice by expanding roles of other practice staff

Professional education

- RACGP QA&CPD points and ACRRM PDP clinical audit activity points
- Discuss clinical issues and solutions with practice colleagues and a trained facilitator
- Learn how to implement quality improvement activities in the practice
- Share knowledge and skills among all practice team members

Patient education

- Patient information leaflets for chronic heart failure and hypertension
- Overcome patient reluctance to start or continue drug therapy
- Help motivate patients to take a more active role in their therapy
- Re-engage patients who are not returning for regular reviews

Useful resources

- Chronic heart failure management, including titrating ACE inhibitors and beta blockers and tips on managing adverse effects
- Managing hypertension, including elderly patients and those with coexisting conditions
- Australian cardiovascular risk calculator
- Practice toolkit to guide GPs and practice staff through the activity
- Strategies for improving patient adherence and promoting self-management

Useful practice data

- Learn more about your clinical software and how to use it to complement everyday practice
- Use reminder systems to assist with patient management
- Learn how to record data to get accurate health summaries for referral letters
- Learn ways to analyse and use your patient data
- Compare your prescribing rates with peers in the practice, division and nationally





How is the activity different from the Collaboratives?

This activity builds on the work of the Australian Primary Care Collaboratives (APCC) program, but has a different and more GP-focused approach. Differences include:

- key strategy for change in the PDGPD activity is review of patient management and therapeutic decision-making
- clinical discussions involving GPs and a trained Project Facilitator are an important part of the PDGPD activity
- implementing new practice systems is encouraged if this supports the improvements in therapy, but is not the focus of the activity
- all activities including training practice staff take place within the practice, rather than at external workshops, and there is no requirement to submit Plan-Do-Study-Act (PDSA) cycles.

5. PDGPD Project timeline and sequence of activities (updated 14 Aug 09)

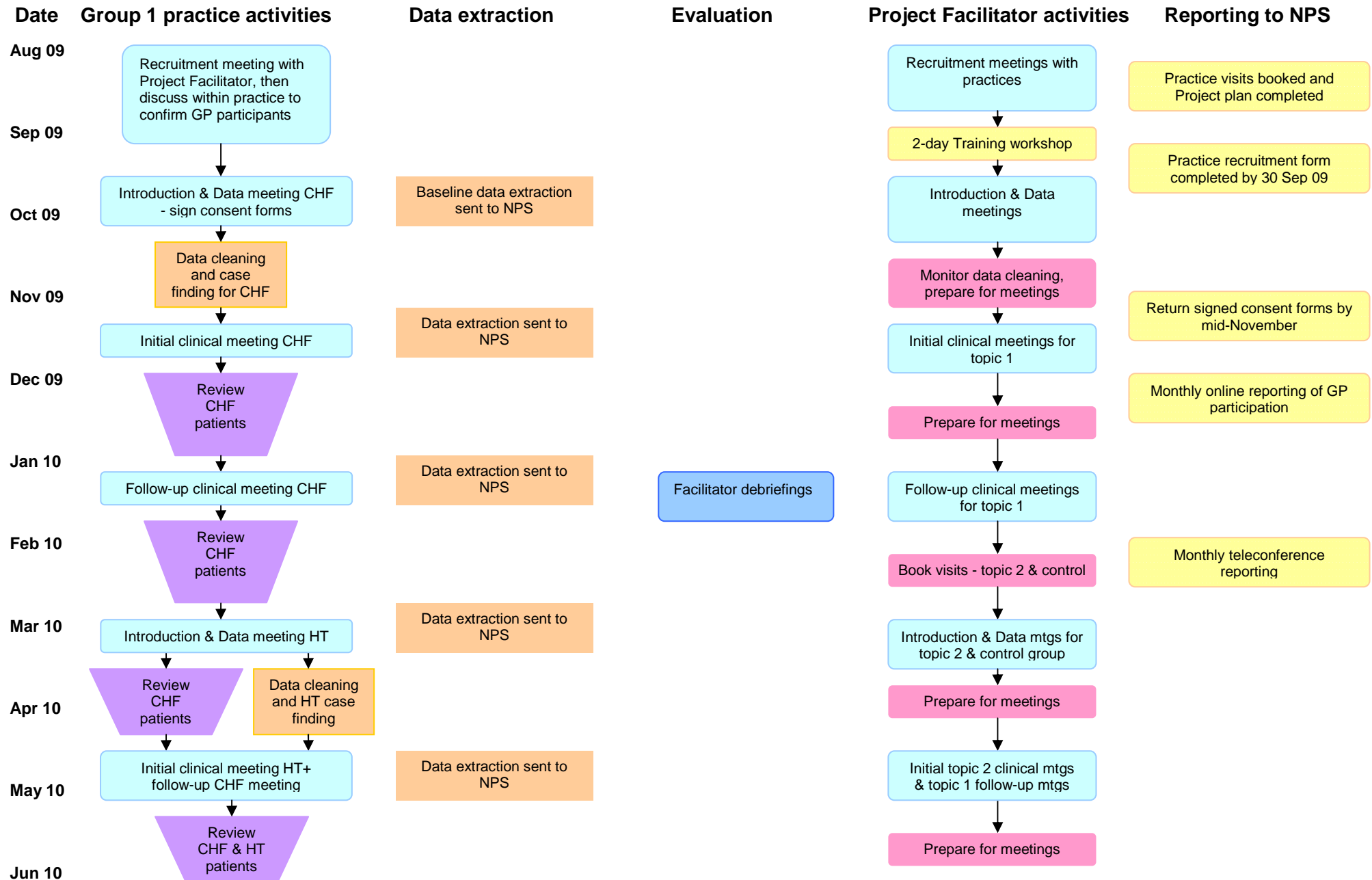
		2009					2010								2011										
		A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
Group 1 – CHF then HT (see flow chart on page 10-11)																									
1	Make meeting appointments	CHF						HT																	
2	Introduction & Data meeting			CHF				HT																	
3	Data cleaning			CHF				HT																	
4	GP review of patients - CHF						CHF																		
5	GP review of patients - HT																								
6	Clinical meetings																								
7	Data extraction																								
Group 2 - HT then CHF																									
1	Make meeting appointments	HT						CHF																	
2	Introduction & Data meeting			HT				CHF																	
3	Data cleaning			HT				CHF																	
4	GP review of patients - HT						HT																		
5	GP review of patients - CHF																								
6	Clinical meetings																								
7	Data extraction																								
Group 3 Wait Control																									
1	Make meeting appointments																								
2	Introduction & Data meeting																								
3	Data cleaning																								
4	GP review of patients - CHF																								
5	GP review of patients - HT																								
6	Clinical meetings																								
7	Data extraction																								

LEGEND	
Chronic heart failure (CHF) activity	
Hypertension (HT) activity	
Optional	
Data extraction	

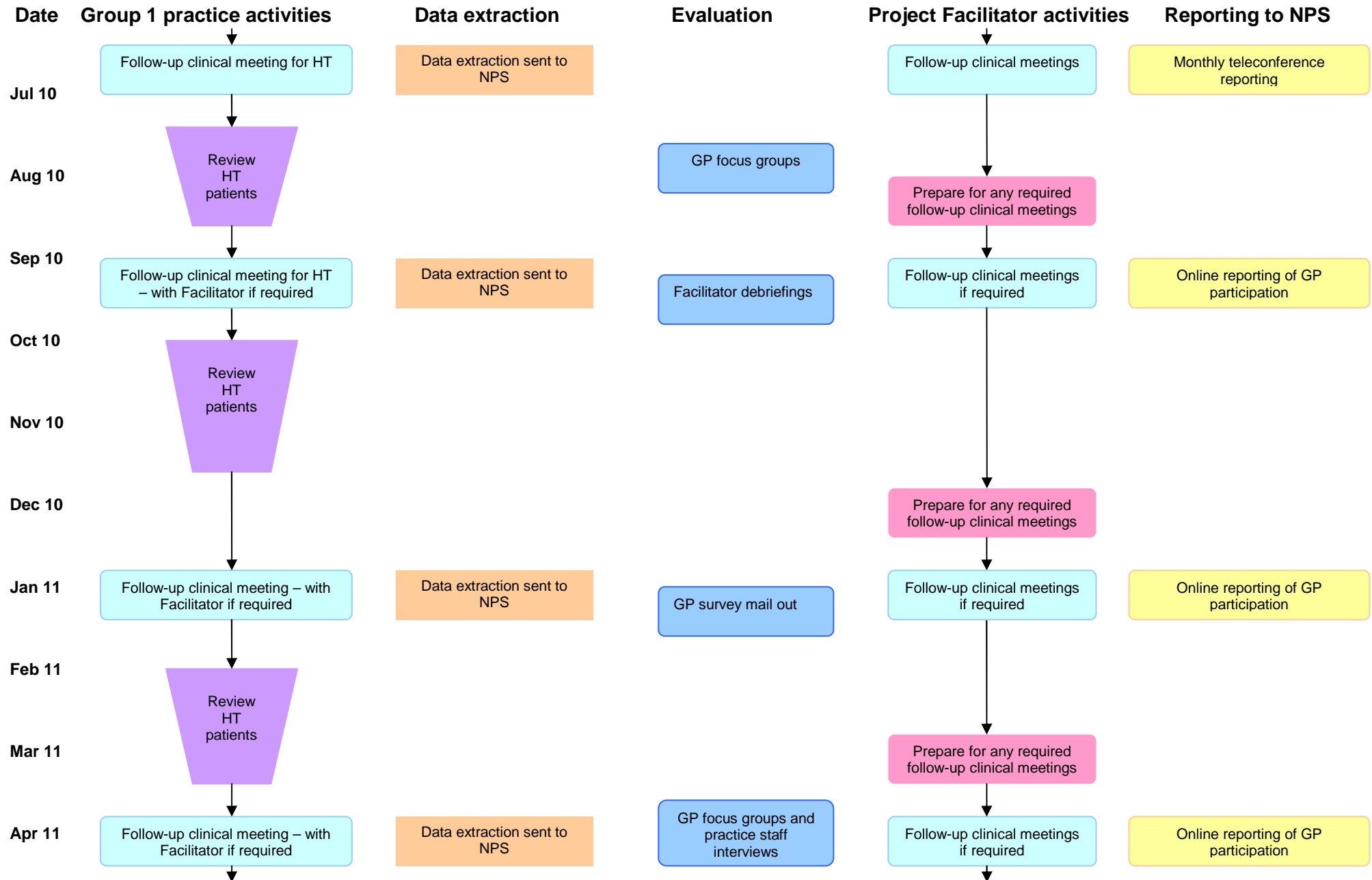
NOTES

- Funding of Divisions beyond 30 June 2010 is expected to continue but would be subject to new agreements.
- The second clinical meetings shown in January 2010 may not be able to be completed in January if practices or GPs are unavailable. Some of these meetings may need to be run in February.
- Time required to review patients will vary between practices and topics. Some may finish within 6 months, but others will require extra time and possibly extra facilitated meetings.
- Introduction & Data meetings should be scheduled for the beginning of the scheduled months to allow practices sufficient time for data cleaning. The Introduction & Data meeting for the second topic will be shorter than the first topic meeting as the introduction to the project will already have been covered in the first topic meeting.
- Clinical meetings will involve some analysis of practice data as well as discussion of clinical issues. Facilitators should ensure that each practice has performed a data extraction before each clinical meeting and will need to examine this data to prepare for the meeting.
- Data extractions for clinical indicator data must be sent to NPS via the Canning data extraction tool before the end of each quarter. Evaluation data must be sent via the Canning tool to NPS at baseline, 3, 6, 9, 12, 18 and 24 months.

Example of activity timeline for Project Facilitators and Group 1 practices (CHF then HT)



Example of activity timeline for Project Facilitators and Group 1 practices (CHF then HT)



6. Canning data extraction tool

What are the indicators in the Canning tool?

Chronic heart failure indicators

- CHF1. Adult patients with chronic heart failure not using an ACE inhibitor or angiotensin II-receptor antagonist
- CHF2. Adult patients with chronic heart failure using an ACE inhibitor or angiotensin II-receptor antagonist, and not using a heart-failure-specific beta blocker
- CHF3. Adult patients with chronic heart failure using an ACE inhibitor, and using the ACE inhibitor below the recommended dose
- CHF4. Adult patients with chronic heart failure using a drug that may exacerbate the disease

Antihypertensive drugs indicators

- HT1. Adult patients with hypertension using at least one antihypertensive drug whose latest blood pressure is 140/90 mmHg or higher (measured in the last 12 months)
- HT2. Adult patients with hypertension using a prohypertensive drug whose latest blood pressure is 140/90 mmHg or higher (measured in the last 12 months)
- HT3. Adult patients with hypertension and coronary heart disease, diabetes, chronic kidney disease, stroke or TIA, whose latest blood pressure is 130/80 mmHg or higher (measured in the last 12 months)
- HT5. Adult patients using an ACE inhibitor or angiotensin II-receptor antagonist, who are also using a systemic NSAID and a diuretic

What can practices expect from the Canning tool?

- Check indicator results for the **whole practice**, and for **individual GPs** in the practice.

- View the list of patients flagged by each indicator as potentially needing review

Patient	Age	Classes of Antihypertensives	BP	BP Date	
Tumovo, Teliko	36	3 or more classes	130/90	13/11/2008	Blood Pressure Labile
Harper, Henry	63	1 class only	140/70	31/10/2008	Hypertension
Worley, Winona	67	2 classes	140/90	15/7/2008	Hypertension
Strauss, Sabrina	44	2 classes	150/80	7/7/2008	High Blood Pressure
Nerd, Narelle	68	1 class only	160/120	9/5/2008	Hypertension
Hannaford, Hans	40	1 class only			High Blood Pressure
Holten, Hanna	63	1 class only			Hypertension - Controlled
Holtzworth, Harold	85	1 class only			Hypertension - Isolated Systolic
Nobles, Nathan	48	1 class only			Labile Hypertension
Henderson, Henry	74	3 or more classes			HT (Hypertension)
Ng, Natasha	57	1 class only			Renovascular Hypertension

- Save indicator results from each extraction and print reports to monitor progress

NPS Results Reports

Menu
Print
Dr A. Practitioner
Graphs
Indicators

Chronic Heart Failure
Antihypertensives
General QUM
Data Quality - CHF
Data Quality - HT

CHF	CHF1 Chronic heart failure patients <u>not</u> using an ACE inhibitor / angiotensin II-receptor antagonist	CHF2 Chronic heart failure patients using an ACEI / AIIIRA, and <u>not</u> using a heart-failure-specific beta blocker	CHF3 Chronic heart failure patients using an ACE inhibitor, and using the ACE inhibitor <u>below</u> the recommended dose	CHF4 Chronic heart failure patients using a drug that may exacerbate the disease
Extraction Date	Patients			
24/3/2009	1 of 3 ✖			
GP	87 / 202 (43%)	95 / 100 (95%)	39 / 84 (46%)	41 / 202 (20%)
Practice	88 / 203 (43%)	95 / 100 (95%)	39 / 84 (46%)	41 / 203 (20%)

- After sending practice-level indicator results to NPS, view divisional and national aggregate results for each indicator on the data feedback website

Results at practice, division and national levels

Indicator HT1: Hypertensive patients using at least one antihypertensive drug whose latest blood pressure $\geq 140/90$ mmHg

