

Analysis of Residential Aged Care Facility Staff and Approved Provider Surveys

May 2012



National Residential Medication Chart Project

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This paper is available on the Commission website: www.safetyandquality.gov.au

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Guide to terms

The following list includes some of the terms used throughout this paper and explains the ways in which they are used.

The *National Residential Medication Chart Project: Glossary, abbreviations, key concepts and terms* provides the full range of definitions for terms and abbreviations used in the National Residential Medication Chart Project. It is available from the Commission web site at www.safetyandquality.gov.au/our-work/medication-safety/medication-chart/nrmc/ Terms used in the paper, and which are not defined, take the standard English meaning.

Approved provider
An approved provider is a person or body who is approved by the Department of Health and Ageing (DoHA) to provide Government-subsidised residential aged care. Although this may be residential, community or flexible care, an approved provider in this paper is a provider that has been approved to provide residential aged care.
Medication chart
A chart used by an authorised prescriber to record medication and treatment orders, and by nursing staff to record and monitor the administration of such medicines and treatment. It is an accurate, reliable and complete record of current prescribed, over the counter and complementary medicines used by the resident. Charts (including written and electronic versions) are required to comply with relevant State or Territory legislation and standards, including the legal and professional obligations for prescribers, pharmacists, RACFs, nurses and other care workers, and the requirements for privacy, security and confidentiality.
Pharmaceutical Benefits Scheme
The Pharmaceutical Benefits Scheme, or PBS, is an Australian Government initiative that provides affordable access for all Australian residents to effective and cost-effective medicines. The Repatriation Pharmaceutical Benefits Scheme, or RPBS, provides access to an additional range of items at a concession rate for the treatment of eligible veterans, war widows/widowers, and their dependants. PBS will refer to PBS and RPBS in this document unless otherwise stated.
Resident
A resident is a person living in a residential aged care facility.
Residential aged care facility
Residential aged care facility, or RACF, is a term used to describe a residential aged care facility operated by an approved provider. RACFs are defined as " <i>Australian Government subsidised residential care is governed by the Aged Care Act 1997 and the Aged Care Principles and is administered by the Department of Health and Ageing</i> " (Report of the Operation of the Aged Care Act 1997, Commonwealth Government 2011, p.35). Aged care services delivered through transitional care, multi purpose services (MPS), flexible care (ATSI) and other flexible care (CAPS/EACH and EACHD) are not within the scope of this project as they are managed by the states and territories and operate across diverse settings such as community care and direct hospital care.

Executive summary

This paper presents the findings and contextual analysis of two surveys undertaken in 2012 by the Australian Commission of Safety and Quality in Health Care (the Commission) as part of the National Residential Medication Chart (NRMC) Project.

1. The *Residential Aged Care Facility Medication Chart Staff Survey* (the staff survey) resulted in 449 responses from staff in residential aged care facilities (RACFs) who were involved in the administration of medicines to residents from a medication chart.
2. The *Residential Aged Care Facility Medication Chart Approved Provider Survey* (the approved provider, or AP, survey) resulted in 274 responses from approved providers and facility key personnel responsible for supplying medication charts to staff, compliance with relevant legislation, accreditation standards, governance and operations of RACFs.

It reports on responses to medication management issues canvassed in the staff survey, some specifically in relation to medication charts, which included:

- Identifying residents from medication charts;
- Special resident considerations which can inhibit safe medication management;
- Optimal duration of a medication chart;
- Classification of staff administering medicines in aged care;
- Optimal capacity of a medication in aged care;
- Average number of medications per resident;
- Use of specific medicines such as warfarin and insulin in aged care;
- Use of specific chart element including colour; and
- Views on likes and dislikes in relation to current medication charts.

The questions varied for the approved provider survey which focused on governance, monitoring and compliance with regulatory bodies, rather than the everyday use of the chart in the administering of medicines to residents on which the staff survey focused.

The NRMC Project is part of a Commonwealth Government quality reform which is transitioning supply and PBS claiming for medicines in RACFs from a script to a medication chart. It has required the development of a standardised, user-friendly chart that also supports safe and accurate medication management for residents. To meet the diverse needs of the aged care industry and associated stakeholders, a paper-based chart, known as the National Residential Medication Chart (NRMC), is being developed based on safety and quality principles and mandatory requirements for PBS supply and claiming. Stakeholder engagement in development of the NRMC, including findings from these surveys, has reinforced the paramount importance of safety to the aged care industry in the context of medication charts.

Whilst it is acknowledged that much work has been undertaken through everyday usage and selected analysis of existing medication charts by different companies when refining their products, a comprehensive independent analysis and development of a medication chart based on aggregated feedback across the aged care sector nationally has, to date, not occurred in Australia.

An independent national analysis undertaken in 2011 by the Commission identified the types of medication charts and content currently used in Australian RACFs. A comparison and contrast of the medication charts used by a representative national sample of 1,049 RACFs formed the basis of the analysis. It showed that the aged care sector currently relies heavily on a variety of paper medication charts for the delivery of medication to residents. Variation occurs in the type of charts used across individual RACFs and within those belonging to a single approved provider. The purpose of the report was to inform development of medication chart for use in RACFs nationally.

The findings from the staff and approved provider surveys on medication charts in RACFs reported in this paper support the earlier findings and recommendations from the 2011 RACF medication chart analysis. Apart from confirming these findings, the major findings from the surveys reveal a significant new dialogue about the preferences for either a multi-leaf sheet format or a booklet format commonly seen in medication charts in RACFs, with booklet form predominating. A further preference for typed medicine orders over and handwritten entries also received much attention from the respondents in the staff survey and approved provider survey question on medication chart likes and dislikes.

The *National Residential Medication Chart Project* is managed by the Australian Commission on Safety and Quality in Health Care (the Commission), funded by the Department of Health and Ageing (the Department) under the *Fifth Community Pharmacy Agreement* and governed by funding arrangements between the Department and the Commission.

Next stages in the project are to complete development of the National Residential Medication before commencing phased implementation of the quality initiative (including the NRMCM) in August 2012.

1. Introduction to medication charts in aged care: Surveys of RACF staff and approved providers

This paper presents the findings and contextual analysis of two surveys undertaken in 2012 by the Australian Commission of Safety and Quality in Health Care (the Commission) as part of the National Residential Medication Chart (NRMC) Project.

3. The *Residential Aged Care Facility Medication Chart Staff Survey* (the staff survey) resulted in 449 responses from staff in residential aged care facilities (RACFs) who were involved in the administration of medicines to residents from a medication chart.
4. The *Residential Aged Care Facility Medication Chart Approved Provider Survey* (the approved provider, or AP, survey) resulted in 274 responses from approved providers and facility key personnel responsible for supplying medication charts to staff, compliance with relevant legislation, accreditation standards, governance and operations of RACFs.

A total of 723 respondent responses were received from both surveys.

The surveys were undertaken as part of targeted stakeholder engagement and to inform the NRMC Project of the medication chart experience and views of staff and approved providers in the residential aged care sector.

The survey questions were designed to produce information which would assist the NRMC Reference Group, and the NRMC Project team, determine key design aspects of the proposed NRMC. The staff survey focused on the administration of medicines and use of the chart by RACF staff in their everyday practice. In contrast the approved provider survey focused on oversight and monitoring of medication management at RACFs.

The analysis of the medication chart surveys is presented within the context of the NRMC Project and details respondent demographics, major findings and respondent responses on medication management within residential aged care. Recommendations from an earlier report of the NRMC Project, *Analysis of residential aged care facility medication chart*, are also discussed together with aged care accreditation standards in the analysis of survey responses.

1.1 Background

The National Residential Medication Chart Project (the NRMC Project) is developing a standard medication chart for use in Commonwealth-funded residential aged care facilities. The chart will be the main communication tool for medications information between prescribers, dispensers, administrators and reconcilers. The NRMC Project will:

1. Develop standardised information fields and layout for a national medication chart; and
2. Incorporate into the chart fields enabling pharmaceutical supply and Pharmaceutical Benefits Scheme (PBS) and Repatriation Pharmaceutical Benefits Scheme (RPBS) claiming directly from the chart.

Standardising RACF medication charting and associated processes, and eliminating the need for PBS and RPBS scripts, has the potential to improve the safety and quality of

medications for residents in RACFs and to improve workflows for health professionals working in the sector.

The project will result in:

1. A standard paper-based medication chart designed for use in RACFs; and
2. Essential elements for safe electronic medication management systems in RACFs.

The project forms part of a larger initiative, the Supply and Claiming of PBS Medicines from a Medication Chart in Residential Aged Care Facilities, an initiative under the *Fifth Community Pharmacy Agreement*. The initiative is managed jointly by the Department of Health and Ageing as the Commonwealth's representative and the Pharmacy Guild of Australia with oversight by the Agreement Consultative Committee.

The National Residential Medication Chart Project is managed by the Australian Commission on Safety and Quality in Health Care (the Commission), funded by the Department of Health and Ageing (the Department) under the *Fifth Community Pharmacy Agreement* and governed by funding arrangements between the Department and the Commission.

2. Medication charts in aged care: Staff survey

2.1 Aim

The aim of the *Residential Aged Care Facility Medication Chart Staff Survey* was to identify, compare and contrast perspectives of residential aged care staff in relation to the format, fields and functionality of medication charts currently in use.

2.2 Rationale

Analysing RACF staff perspectives on current medication chart use reveals current medication management practices, work flow and preferences. The survey questions were based on elements related to particular aspects of the proposed NRMC and of importance in design, layout, function and useability.

Recommendations from an earlier NRMC Project report, *Analysis of residential aged care facility medication charts*, combined with feedback from a range of stakeholders were taken into consideration in the design of the survey. The findings of the *Residential Aged Care Facility Medication Chart Staff Survey 2012* will be translated into the NRMC design and mediated by safety considerations and principles.

2.3 Objectives

Objectives of the analysis were to:

- Identify which elements and design aspects of RACF medication charts were important to staff;
- Compare and contrast different perspectives on formats, fields and functionality of current RACF medication charts;
- Provide additional context and texture to the findings and recommendations in the *Analysis of residential aged care facility medication chart*; and
- Report to stakeholders the findings and the link between them and the final design of the NRMC.

2.4 Method

The survey consisted of 18 questions in a paper-based format that was emailed to aged care homes across Australia. Recipients were from RACFs that were either affiliated with industry peak and professional bodies, linked to medication vendors promoting the NRMC Project or included on NRMC Project communication groups. The recipients also had access to internet and faxing capabilities.

The survey was conducted from February to March 2012.

Instructions on completing and returning the surveys were provided and responses were either emailed or faxed directly to the Commission for collation and analysis. While confidentiality was assured, respondents were able to provide their contact details if they chose.

Some questions were scored on a 5 point Likert scale (1 indicating a negative response and 5 indicating a positive response) by circling the preferred response. In other questions, respondents were asked to provide an answer by indicating the answer which best fitted. All questions had a free text section for comment.

The questions were designed to clarify staff and approved provider views on critical information for the administration of medicines, and in particular, the following items:

- Resident identifiers (such as gender, age, preferred name);
- Resident considerations (such as cognitive impairment, swallowing difficulties);
- Optimal duration of the chart;
- Average numbers of medicines ordered for each resident;
- Numbers of residents ordered Warfarin and/or insulin;
- General format and layout of medication charts;
- Functionality of managing medication charts;
- Use of colour;
- Non-prescribed medicines (such as over-the-counter and complementary medicines);
- Charting of nutritional supplements;
- Residents who self administer;
- High frequency medicines such as anti-Parkinsonian medicines; and
- Comments related to medication charts in general.

Analysis of the responses used quantitative descriptive statistics for specified responses combined with qualitative thematic analysis of the comments sections to gain insight into the main themes and issues identified by respondents.

3. Medication charts in aged care: Approved provider survey

3.1 Aim

The aim of the *Residential Aged Care Facility Medication Chart Approved Provider Survey 2012* was to identify, compare and contrast perspectives of residential aged care approved providers in relation to the overall functionality of medication charts currently in use. The questions varied somewhat from the staff survey as the role of the approved provider focuses on governance, monitoring and compliance with regulatory bodies, rather than the everyday use of the chart in the administering of medicines to residents.

3.2 Rationale

An analysis of approved provider views on medication charts was undertaken to increase understanding of medication chart governance, monitoring and compliance with regulatory bodies from that perspective. The survey questions were based on elements related to particular aspects of the NRMC development that were of critical importance in function and useability.

3.3 Objectives

Objectives of the analysis were to:

- Identify some elements on medication charts in RACFs of importance to approved providers;
- Compare and contrast different points of view related to the functionality of medication charts currently in use in RACFs;
- Increase current knowledge and perspectives related to the previous recommendations of the *Analysis of residential aged care facility medication chart*; and
- Utilise and communicate to stakeholders the findings in relation to the future developments of the NRMC.

3.4 Method

The survey consisted of 10 questions in an online format (Survey Monkey) that was emailed to approved providers across Australia. Participants came from aged care homes where there was an awareness of the NRMC project either through affiliation with industry peak and professional bodies; medication vendors; and/or NRMC communication groups. As a result, the exact numbers of potential participants and response rates are difficult to define. However, the total number of participants was 274.

The survey was conducted from March to April 2012.

Completion of the survey required participants to have access to the internet. Instructions related to the completion and returning of the surveys were provided and responses were

administered directly online by the Commission for collation and analysis. Confidentiality was assured. There was a mixture of multiple-choice and multi-response questions and questions that required participants to provide open-ended short answers.

The questions aimed at gathering approved provider perspectives on issues such as:

- Optimal duration of the chart;
- Classification levels of staff who administer medication charts in residential aged care;
- Arrangements for funding and supplying medication charts in residential aged care;
- Likes and dislikes of medication charts in general; and
- Comments related to medication charts in general.

Analysis of the responses utilised quantitative descriptive statistics for specified responses combined with qualitative thematic analysis of the comments sections to gain insight into the main themes and issues that participants expressed in relation to their use of medication charts in the residential aged care sector.

4. Major survey findings

The major findings of both surveys supported recommendations in the *Analysis of residential aged care facility medication charts* developed in 2011 as part of the NRMC Project and which identified safety fields and other inclusions for the NRMC.

Both surveys also indicated strong support for introduction of a standardised medication chart in residential aged care. Resident safety benefits identified included:

- Prompting of regular review of medications;
- Consistent and current medications information during clinical handover including between different residential aged care facilities; and
- Familiarity with the common chart and associated processes for staff and managers working across multiple RACFs.

Further responses indicated that consistent medication chart information, format and processes as seen in acute care settings with the National Inpatient Medication Chart would enhance the safety of medications management and quality use of medicines in RACFs.

Similar findings in both surveys highlighted staff and approved provider concerns with resident safety in relation to medications. In particular, responses stressed the role of medication charts in prompting regular review of resident medicines by a medical practitioner and the clinical decision-making which informed that process.

Respondents identified the user-friendliness of medication charts as important particularly that they act as an efficient source of critical, accurate and current clinical information. The benefits of a standardised chart in relation to auditing (and benchmarking with other RACFs in relation to practice and use of the chart safety features) were raised consistently by respondents.

4.1 Identifying the resident

Information identifying the resident such as gender, age and preferred name were strongly supported as useful for staff in determining resident identity for administration of medication. Photographs of residents received the strongest support for being very useful (99.7%). Preferred name of resident also received significant support for being very useful (88.6%).

4.2 Special considerations

Noting resident attributes, or special considerations, that may affect safe medication management (such as cognitive impairment, language barrier, resistive to pills or crushing pills and suspending in other media) was strongly supported (91.9%-99.5%) as very useful to staff when administering medicines to residents. The majority of respondent comments (83.0%) on noting special considerations related to managing the considerations to ensure safe administration of medicines. In relation to noting primary diagnosis, feedback suggested that it is the resident impairment or altered behavioural patterns resulting from the primary diagnosis, rather than the primary diagnosis itself, that is of significance to staff when administering medicines to residents and therefore should be available on the medication chart.

For example, residents with a primary diagnosis of stroke often have associated dysphagia or dysarthria. In this instance, communicating the associated impairments, rather than the

primary diagnosis of stroke, would be more useful for staff when administering medicines to residents. Respondent commentary suggests that it is critical to communicate to RACF staff detailed information on special considerations for medicine administration to particular residents. For example, noting that the resident prefers pills crushed in yogurt or takes only one tablet at a time is of great assistance to staff responsible for medicines administration. Respondents suggested that adequate space be allocated for documenting special considerations on the front cover of the medication chart.

4.3 Duration of medication charts

Staff survey respondents strongly supported a 3 month minimum duration for an aged care medication chart. Approved provider respondents supported a 3 to 5 month chart. The vast majority of the comments from both staff and approved provider respondents in relation to the duration of a medication chart (99.3%) came with the qualifier of directly linking the duration of the chart with the need for medical review. This dominant theme of medication reviews prompted by the need to rechart medicines did not vary between the two respondent groups.

4.4 Types and numbers of medicines

Respondent responses and comments about the numbers of medicines ordered for residents reflected general concern about polypharmacy in residential aged care. Respondents indicated that each resident is ordered an average of ten medicines. Responses indicated that approximately 18% of residents were ordered warfarin and approximately 22.7% were ordered insulin.

Respondents also commented on the difficulties associated with identifying and monitoring variable dose medicines in current medication charts. The comments suggested general support for separate sections on the chart for insulin prescribing and administering where blood glucose levels can be located in close proximity to insulin orders and doses.

Concerns were also raised about the documentation and accountability for medicines that “need to be adjusted.” Adequate room on the chart for double signatures when administering insulin and warfarin was also raised and this is consistent with Commission feedback from site visits. Respondents reported frustration with current medication charts with insufficient space for recording administration times of high frequency dose medicines such as anti-Parkinsonian drugs.

4.5 Format, layout and functionality of medication charts

Responses to questions on format, layout and functionality of medication charts were generally consistent. The main preferences were for:

- A4 size chart;
- Use of colour to highlight significant items; and
- Ability to photocopy, fax or scan to pharmacists and medical practitioners.

Respondents did not indicate a preference for landscape or portrait, or a preference for a single sheet/s chart or booklet format, except in the section seeking views on general medication chart likes and dislikes.

4.6 Non-prescribed medicines (such as over-the-counter and complementary medicines)

Although not as definitive as other findings in the survey, respondents reached a consensus that non-prescribed medicines should be recorded on the medication chart. The commentary for this section indicated a dominant safety theme that staff and medical practitioners needed to know what medications (whether prescribed or non-prescribed) residents were taking to minimise risk of interactions. 68.1% of respondents preferred the non-prescribed medicines placed on the medication chart separate from prescribed medicines.

Discussion about non-prescribed medicines not being recorded on the medication chart related only to items such as creams and moisturisers. Respondents stated that these were not required on the medication chart as they were viewed as a treatment rather than a medication.

4.7 Nutritional supplements

Similar to the responses about non-prescribed medicines, respondents indicated a preference for nutritional supplements to be documented on the medication chart separate to prescription medicines. Respondent commentary suggested that it is important for those prescribing medicines, and those administering medicines, to be aware if a resident was at risk of sub-nutrition and consequently receiving nutritional supplements. A preference was clear for information on intake, weight monitoring and the Basal Metabolic Index (BMI) score being proximate to nutritional supplement orders on the medication chart. Respondents stated that this information was useful on the medication chart for clinical staff and the medical practitioner when reviewing resident medicines and prescribing medicines.

4.8 Likes and dislikes of medication charts in general

Responses about aspects of current medication charts that are disliked identified the following:

- Size of signature boxes too small to complete in a legible manner;
- Insufficient space to chart and sign for PRNs (as required medicines) and nurse-initiated medications;
- No space to record administration of telephone orders; and
- No space to record variable dose medicines and associated laboratory results.

There were many, often strong, negative comments about current RACF medication chart formats. A large number of respondent comments related to dissatisfaction with computer-generated, printed medication order sheets, supplied by pharmacy, that were separate to the medication administration signing sheets. Respondents expressed ongoing frustration with:

- Multiple, and potentially confusing, reprints of the sheets as a result of medicine changes and updates;
- Onerous time required for RACF auditing purposes;

- Loss of information between frequent versions of the printed medication order sheets that were filed away at RACFs;
- Uncertainty about the exact numbers of pages of medication orders that existed for each resident at any one time;
- Limited or no access to updated sheets after hours and weekends; and
- Complaints from medical practitioners about the lack of consolidated medicine prescribing and administration history.

Computer-generated hard copies of medication charts that require recommencement and reprinting following a change in prescribed medicines were cited as major system inefficiencies and potential safety risks through irregular version control.

In contrast, negative comments related to handwritten paper-based medication charts were less frequent and related exclusively to the illegibility of medical practitioner handwriting.

Comments referring to booklet and chart formats expressed a preference for resident information, medicine orders and administration signatures located together with a clear layout and defined number of pages. Comments supported easy access to necessary information and reassurance that items could not go missing, as with single pages, and that staff were less likely to miss medicines, resident allergies and recent medicines history.

Some instances were cited when residents were prescribed many medicines and had more than one medication chart, as the single chart did not provide enough prescribing space. In this instance, staff indicated that there was more than one chart by writing and highlighting on the medication chart 'chart 1 of 2' and 'chart 2 of 2'. Respondents stated that this was preferable to multiple single pages and that it was also more user-friendly for residents and their carers if they needed to know information about their medicines.

5. Sample characteristics

5.1 Respondent characteristics

The surveys received a combined response of 723. The 449 respondents to the staff survey were from RACFs with a range of 12 to 460 beds and an average number of 66 beds. In contrast, the 274 respondents to the approved provider (AP) survey came from RACFs with a range of 10 to 250 beds and average number of 130 beds.

Jurisdictional distribution, identified by email responses and fax postcodes, reflected a positive skew of RACFs with approximately 20% toward the eastern states of NSW (combined with ACT) (47.79%) and Queensland (22.12%) in the staff survey, compared to the national distribution of RACFs. Similarly, AP survey respondents also reflected a positive skew toward the eastern states, although smaller at 10.2%. The difference between the distribution of the staff and the approved provider respondents was that the states of Victoria/Tasmania (21.9%) featured with NSW/ACT (52.0%) in the approved provider responses rather than Queensland (22.1%) in the staff responses.

The uptake and response rates of RACFs from the remaining jurisdictions for both staff and AP surveys was, on average, approximately 10% lower than the national distribution of approved aged care providers. See Table 1 below.

Table 1: Jurisdictional and geographic distribution: Operational approved providers compared to staff survey respondents and approved provider respondents

Approved provider location	% distribution of staff	% distribution of approved provider respondents	% distribution of approved providers
Western Australia /South Australia/ Northern Territory	8.8%	13.9%	18.7%
Queensland	22.1%	12.1%	17.3%
New South Wales/ACT	47.7%	52.0%	32.9%
Victoria /Tasmania	21.2%	21.9%	30.8%

5.2 Approved provider type

The surveys asked respondents to identify the type of organisation or approved provider type that operated their RACF.

Staff survey respondents (n= 449) and AP survey respondents (n=274) from religious (or faith-based) approved providers were 167 and 78, government were 31 and 27, community were 42 and 46, private were 124 and 39, charitable were 55 and 71, other were 21 and 8 and unsure were 0 and 8.

Despite respondents self-selecting, the approved provider type did not vary a great deal from the national distribution of provider types with minor skews of staff survey respondents to the private approved providers and AP survey respondents to charitable approved providers. See Table 2 below

Table 2: Percentage of operational approved provider types nationally compared to percentage of respondents in survey

Approved provider type	% staff survey respondents by AP type	% AP survey respondents by AP type	% of AP types nationally
Religious (or faith-based)	37.1%	28.9%	27.9%
Government	6.9%	10.0%	6.4%
Community	9.3%	17.0%	13.7%
Private	7.6%	14.4%	34.9%
Charitable	12.2%	26.3%	16.93%
Other	4.6%	3.0%	N/A
Unsure	0.0%	0.4%	N/A

5.3 Staff classification

Different questions were asked in the two surveys to understand which staff classifications administer medications in the responding facilities. Question 15a in the staff survey asked respondents to classify themselves. Question 5 in the AP survey asked respondents to classify the types of staff that administered medications in their RACFs. This issue has important design implications for the NRMC.

Both staff and AP survey respondents identified multiple staff classifications administering medicines. Registered classifications predominated in both the staff and AP surveys. Both survey responses reflected registered nurse as the most common medicines administrator classification at 39.1% in the staff survey and 87.4 % in the approved provider survey.

The second most noted staff classification administering medicines was manager (19.5%) in the staff survey and enrolled nurse categories in the AP survey (at 81.4%).

Of note is that 19% of AP survey respondents identified manager classification administering medications. It is unclear from the data whether this category is registered or unregistered staff, however the numbers of managers involved in administering medications is not surprising given the multi-tasking of managers in RACFs.

Although the findings reflect that the majority of both staff and AP respondent RACFs have registered staff administering medicines, non-registered staff classifications also featured across both staff and AP survey respondents but to a lesser extent. See Table 3 below.

Table 3: Percentage of staff administering medications in respondent facilities

Staff classification	% in staff survey (n=449)*	% in AP survey (n=274)*
Registered nurse (RN)	39.1% (176)	87.4% (235)
Enrolled nurse (EN)	4.0% (18)	36.8% (99)
Endorsed enrolled nurse (EEN)	7.7% (35)	44.6% (120)
Assistant in nursing (AIN)	7.7% (35)	20.1% (54)
Personal care assistants (PCA)	15.8% (71)	36.8% (99)
Care service officers (CSE)	2.8% (13)	2.8% (59)
General service officers (GSO)	1.3% (6)	0% (0)

Manager	19.5% (88)	19% (51)
Other	1.5% (7)	9.3% (25)

* Number in brackets is responses

5.4 Care level

The staff survey (Question 14) and the AP survey (Question 4) asked respondents to identify the care level at which they worked (high, low or both) or which level of care the residents were receiving. Staff survey respondents (29%) and AP survey respondents (17.8%) identified high care. Staff survey respondents (12.2%) and AP respondents (6.7%) identified low care. A majority of both staff survey respondents (55.5%) and AP survey respondents (72.5%) identified a combination of high and low care. See Table 4 below.

Table 4: Percentage of care levels nationally compared to percentage of care levels in survey

Care level	% staff survey respondents by care type	% AP survey respondents by care type	% of AP by care type nationally
High care	29% (131)	17.8% (48)	27%
Low care	12.2% (55)	6.7% (18)	30%
Both	55.5% (249)	72.5% (195)	42%

* Number in brackets is responses

Both survey responses under-represent low care RACFs nationally which are 30% of approved providers. In contrast, survey respondents providing both high and low care are significantly higher than the reported national average of 42% (Commonwealth Government 2011, p.5).

However, reporting of approved provider allocated places often varies from the level of high care actually provided in low care allocated beds due to ageing in place (which allows residents to remain in the same environment as their care needs increase). Ageing in place reclassifies the amount of funding associated with the higher care delivered but not the original allocation status of the place as either high or low care. Consequently it can be expected that respondent responses to level of care questions is not incorrect compared to official data on nationally allocated places. The level of care is important to the NRMC Project as the increasing complexity of resident health, and associated medication, needs to be accommodated in the medication chart.

5.5 Right and left handedness

Understanding the propensity of staff to left- and right-handedness has implications for NRMC design and useability. It is important that left handed staff can view the essential fields on the NRMC while using their left hand to write. Not unexpectedly, the responses from staff survey respondents (in which the information was sought) were consistent with the general population with a slight skew away from ambidextrous of approximately 4%. Respondents identified that the majority were right handed at 88.8%, 8.6% left handed and 2.2% ambidextrous. See Table 1.5 below..

Table 5: Preferred handedness of staff respondents compared to national figures

Propensity	% staff survey respondents	% nationally (female)	% nationally (male)
Right hand	88.8% (399)	85.5%	81.8%
Left hand	8.6% (39)	9.1%	10.5%
Ambidextrous	2.2% (10)	5.4%	7.7%

National figures are from Australian Bureau of Statistics 2008 data.

6. Respondent responses and discussion

The survey questions were purposely designed to elicit responses related to particular aspects of the proposed NRM in which end user knowledge and experience could inform the design outcome. The staff survey sought information from respondents on medicines and the use of medication charts in everyday practice. In contrast the AP survey sought information on the oversight and monitoring of medication management in RACFs.

Likert scale responses are provided in tables with the raw figure and a percentage of the total staff responses (n = 449). Positive responses are recorded as combined scores of 4 and 5 throughout the document. Where the responses were closely aligned, a combined score of the negative scores 1 and 2 was used to assist in distinguishing a respondent consensus.

The following provides an analysis of staff survey and AP survey responses.

6.1 Staff Survey Question 1: *How useful are the following in identifying residents?*

This question was designed to understand respondent views about identifying residents for medication purposes. It linked to Recommendation 1 in the *Analysis of residential aged care facility medication chart*.

Incorporate the following resident identification fields to reduce resident identification error: formal name, preferred name, date of birth, gender, identifier (such as MRN, URN), room number, known allergies and previous adverse drug events, a recent photograph and an alert if resident with similar name. In addition, incorporate a field for known resident communication barriers such as cognitive impairment and primary language other than English.

Overall, there was strong support for all of the items listed with five of the six items scoring above 80%. The item 'current photograph' was identified as the most useful at 99.7% and 'age in years' as least useful at 61.9%. See Table 6 below. 'Age in years' also scored 18% as not useful (combined 1 and 2 scores) and mid-range (3) score of neither useful nor not useful of 20%.

Table 6: Survey responses on usefulness of suggested items for identifying residents on medication charts

How useful are the following in identifying residents?	Not useful-----Very useful					Combined scores 4 + 5
	1	2	3	4	5	
Preferred name	13 (2.8%)	7 (1.5%)	31 (6.9%)	74 (16.4%)	324 (72.1%)	398 (88.6%)
Current photograph	0 (0.0%)	0 (0.0%)	1 (0.2%)	44 (9.7%)	404 (89.9%)	448 (99.7%)
Gender	8 (1.7%)	11 (2.4%)	56 (12.4%)	84 (18.7%)	290 (64.5%)	374 (83.2%)
Date of birth	3 (0.6%)	19 (4.2%)	63 (14%)	68 (15.1%)	296 (65.9%)	364 (81%)
Age in years	37 (8.2%)	44 (9.7%)	90 (20%)	91 (20.2%)	187 (41.6%)	278 (61.9%)
Room number	8(1.7%)	10 (2.2%)	34 (7.5%)	55 (12.2%)	342 (76.1%)	397 (88.4%)

Survey respondents also responded strongly to this question through the comments section which strongly supported information identifiers on medication charts as essential. This is consistent with *Aged Care Accreditation Standards Expected Outcome 2.7* 'Resident's medication is management safely and correctly' and which also directs quality assessors to explore how the facility ensures 'the correct identification of residents'.

Other identifiers were also suggested by respondents such as 'alert for similar name' and 'NESB/CALD' (non-English speaking background/culturally and linguistically diverse) which, although not listed in this particular survey question, form part of Recommendation 4 in the *Analysis of residential aged care facility medication chart*.

Incorporate separate, specific fields for special considerations.

The main themes identified in this question are reflected in the following respondent comments (which are reproduced without correction);

- Alert to another resident with similar name; '*Alert to another resident with similar name, need some type of differentiate (such as red warning colour) if there are residents with same or similar names*'
- Preferred name; '*Preferred name or Nick name is very important. Many residents have Christian names they do not go by and use life long nick names or different Christian names. This can be very confusing, especially to new or agency staff and where you have several Jeans or Micks or Mary's etc...*'

6.2 Staff Survey Question 2: How useful is the following information when administering medicines to residents?

This question was designed to understand respondent views about useful resident information required for safely administering medicines. It linked to Recommendation 4 in the *Analysis of residential aged care facility medication chart*.

Incorporate separate, specific fields for special considerations.

Overall, there was very strong support for six of the eight items which all scored above 90%. The range of very useful responses was 78.3% for primary diagnosis and 99.5% for crushed medicine. See Table 7 below.

Table 7: Survey responses on usefulness of specific information for safety administering medicines to residents

How useful is the following information when administering medicines to residents?	Not useful-----Very useful					Combined scores 4 + 5
	1	2	3	4	5	
Primary diagnosis	10 (2.2%)	20 (4.4%)	67 (14.9%)	74 (16.4%)	278 (61.9%)	352 (78.3%)
Swallowing difficulties	0 (0.0%)	0 (0.0%)	6 (1.3%)	18 (4.0%)	425 (94.6%)	443 (98.6%)
Dementia/cognitive issues	2 (0.4%)	0 (0.0%)	15 (3.3%)	54 (12.0%)	378 (84.1%)	432 (96.2%)
Stroke	8 (1.7%)	14 (3.1%)	59 (13.1%)	88 (19.5%)	280 (62.3%)	368 (81.9%)
Language barrier	2 (0.4%)	0 (0.0%)	34 (7.5%)	92 (20.4%)	321 (71.4%)	413 (91.9%)
Crush medicine	0 (0.0%)	0 (0.0%)	2 (0.4%)	16 (3.5%)	431 (95.9%)	447 (99.5%)
Insert via PEG	2 (0.4%)	2 (0.4%)	6 (1.3%)	40 (8.9%)	399 (88.8%)	439 (97.7%)
Resistive to pills	2 (0.4%)	0 (0.0%)	18 (4.0%)	55 (12.2%)	374 (83.2%)	429 (95.5%)

The majority of commentary provided in the comments section related to primary diagnosis. Frequent comments suggest that information about diagnosis was important. For example, *'Would be good to have diagnosis on the medication chart as this information was always available on the old charts and makes for quicker referencing when needed'*. Other comments suggested that the impairment associated with the diagnosis was of primary importance to respondents in terms of medicine administration. For example, *'all diagnosis are helpful, not just primary or if they have had a stroke as it is more the impairments that a stroke has left that is more relevant; "stroke" refers to people with dysphagia, dysarthria. If so, use those impairments, rather than "stroke" as a descriptor.'* Further comments suggested it was the impairments associated with a particular condition that were critical. *'Sensory loss i.e. deaf or blind...do they normally wear glasses (this can change their appearance), whether they have or need communication aids'* and *'dexterity requirements for time/ability i.e. spoon, med cup in hands etc.'*

Swallowing difficulties and dementia/cognitive issues both scored high at 98.6% and 96.3% respectively, indicating a strong preference for these items to be on the medication chart. However one respondent had concerns about documenting particular behavioural information and stated that *'items can be useful but can also create negative connotations toward the resident'*. *Aged Care Accreditation Standards Expected Outcome 2.7* also directs quality assessors to explore how the home identifies and communicates *'each resident's cognitive ability,'* and *'each resident's swallowing and other physical abilities'* in relation to medication safety.

Comments from respondents to this question generally supported identifying and documenting on the medication chart resident information that could impede safe medicine administration. Many comments also related to assisting residents with taking medicine. This is consistent with the high rating of 99.5% for crush medicine. It is interesting that this blanket item received such strong support in the survey as not all medicines should be crushed. Further analysis of the commentary from respondents suggests that it is critical to include information about the specific needs of patients in relation to medicine administration on the medication chart. This support for a section on the chart in which to record this information is captured by the following comments:

- *'I feel that more room is needed to write how the resident takes the medication as the current space is too small especially if the resident is quite complex.'*
- *'Any behaviours/strategies preferred mix (jam, puree fruit) cut tablets (half or quarter) any tips others have for giving meds.'*
- *'An area where information can be written informing staff how resident takes medication i.e. crush mix with custard followed by a drink of water, put in custard spooned into mouth 1 at a time followed by drink of nectar fluid. It can cause distress to residents when staff unsure how medication is taken and residents are unable to inform staff.'*
- *'How many given at one time e.g. some residents prefer altogether and others prefer small ones together and larger ones at one time, plus with pureed fruit and yoghurt.'*
- *'How many tablets the resident is able to swallow at a time some like to take 5-6 at a time.'*
- *'How resident likes medicines administered.'*
- *'How they like to take it e.g. won't take unless is given a cup of tea.'*

- *'How they take their meds e.g.: crushed.'*
- *'How to get residents to take meds e.g.: jam.'*

Remaining items were supported by the respondents and reflected in comments such as the following:

- Alert for complex medication: *'List medications that need monitoring eg warfarin, digoxin, phenytoin'*,
- Self administers: *'Self administering and degree of assistance required.'*

6.3 Staff Survey Question 3 and Approved Provider Survey Question 7: How long [duration] do you think a chart should be and why?

Staff Survey Questions 4 and 5:

How many prescribed medicines do you think each chart should be able to list and why?

What do you think would be the average number of medications prescribed for individual residents in your facility?

These questions were designed to understand the importance of the duration of the medication chart and the numbers of medicines that each chart should be able to accommodate. These questions linked to ongoing discussion of useability, safety and medication reviews in the NRM Reference Group and by stakeholders from Recommendation 5 of the *Analysis of residential aged care facility medication chart*.

Develop a 3 month chart with space for a minimum of 9 regular prescribed medicines.

Chart duration

Staff survey preferences ranged from 1 to 12 months, with an average mean of all responses favouring 3 months. AP survey results on chart duration did not differ significantly with consensus forming around 3 to 5 months.

Of note is that 92% of staff survey and AP survey comments directly linked a response on duration of the chart to the need for medical review of residents. Useability issues, such as the charts becoming too messy over long periods, were mentioned less frequently.

Comments on the questions varied in duration but the very dominant theme of GP reviews triggered by the requirement to rechart medicines did not vary across either staff survey or AP survey responses.

Comments consistently reflected the following sentiment related to the duration of medication charts for 3 and 6 months and the requirement for medical review,

- *'3 months and this ensures that dr's are reviewing medicines and medications charted are current;'*
- *'Any less than 3 months the GP's would not review;'*
- *'3 month GP needs to review resident and rewrite meds chart every 3 months;'*
- *'6 months; regional/rural simply do not the have GP resources to have the GP's write drug charts more frequently that this. It is absolutely an unrealistic expectation of the GP's. RACF's simply can not afford to get the GP's offside in relation to bogging them down in volumes and volumes of unnecessary paperwork when*

what's more important is the care for the residents. Drug charts can be adjusted along the way (as necessary) why does the whole chart have to be rewritten?? Waste of time, money and trees!

Number of medicines per chart

Staff survey responses on number of medicines ordered per current medication chart varied from 4 to 22 with an average mean of 10 medicines per chart. This aligns with Recommendation 5 of the *Analysis of residential aged care facility medication chart*.

(A) minimum of 9 spaces for regular ongoing prescription medicines

When staff survey respondents were asked (at Question 4) 'how many prescribed medicines do you think each chart should be able to list and why', the responses ranged between 4 to 30 medicines with an average mean of 10 medicines per chart. This aligns with the staff survey responses related to numbers of medicines that residents were currently ordered in their RACFs ranging from 4 to 22 with an average mean of 10 medicines per chart. Comments revealed a general acceptance of polypharmacy in RACFs along with some suggestions for documenting medicines in different sections of one chart.

- *'Discourage polypharmacy by encouraging doctors to reconsider if prescribing more than 9 medications;'*
- *'10 should be adequate the more room the more GP's order;'*
- *'10 to 15 because that is the average number of medications our elders are on!;'*
- *'Residents often have multiple medications and should all be on one chart. If having to have multiple charts, increased risk of error; one chart being missed completely;'*
- *'10-15 (due to polymeds), 2 drug charts can be very time consuming;'*
- *'1 page for non-prescribed meds i.e. vitamins-cranberry caps etc ..., 60 - 3 pages of regular medications, 20-1 page of PRN medications, 1 page for telephone orders, 1 page for nurse initiated i.e. 10 medications dual sides. To enable 1 chart and assist in not having to have 2 charts for 1 resident or needing to add page.'*

6.4 Staff Survey Questions 6a and 6b:

Approximately, how many residents are taking warfarin in your facility?

Approximately, how many residents are taking insulin in your facility?

Question 6 contained two elements and arose from discussion related to variable dose medicines use and documentation. Numbers of residents prescribed variable dose medicines is difficult to ascertain as central data bases in the residential aged care sector are either limited or non-existent. The NIMC developed a specific section for variable dose medicines and there was support expressed through consultation for a similar section on the NRMCM and reflected in Recommendation 2 of the *Analysis of residential aged care facility medication chart*.

Incorporate separate, specific fields for warfarin, insulin and for other variable dose medicines.

This is consistent with the *Aged Care Accreditation Standards Expected Outcome 4.7* which directs quality assessors to assess the 'monitoring of doses which may need to be regularly adjusted (for example, psychotropic medications, warfarin and insulin). It aligns with the

findings of Coombes et al (2008) in which evaluation of the NIMC concluded that the inclusion of a designated warfarin section 'at the point of prescribing and administration' enabled informed decision-making and resulted in improvements in warfarin safety. It was recommended that similar principles in relation to specialist charts, such as insulin, may also improve safety outcomes.

Respondents indicated that the numbers of residents ordered warfarin or insulin were 18% and 22.7% respectively with ranges between 0 to 22%. There was general comment about variable dose medicines in relation to identifying and monitoring these on general medication charts. Responses and comments suggested support for separate sections where blood glucose levels, or other laboratory results, could be located in close proximity to insulin, or other medicine, orders. Concern was expressed about documentation and accountability for medicines that "need to be adjusted" in the absence of this information.

Double signature space for insulin and warfarin specifically was also raised and is consistent with Commission feedback from site visits. High frequency dose medicines, such as anti-Parkinsonian drugs, created uncertainty with current medication charts for some respondents as the numbers of available spaces for administration signing was insufficient and with no alternative, standardised process.

6.5 Staff Survey Questions 7, 8a and 8b staff survey:

How would you rate the importance of these features in assisting with medication administration?

In relation to medication management in your facility, how would you rate your level of satisfaction with the following?

Do you think that the use of colour on medication charts is useful and why?

These three questions focussed on medication chart design and function such as spaces in which to sign, information location, clarity, user-friendliness, ease of copying and the use of colour. Responses were consistent with a high level of importance to the respondents with the majority of scores in the 95th percentile in question 7. See Table 8 below.

Table 8: Survey responses on the importance of specific features of medication charts for assisting medicines administration (Question 7)

How would you rate the importance of these features in assisting with medication administration?	Not useful-----Very useful					Combined scores 4 + 5
	1	2	3	4	5	
Size of boxes to sign in	18 (4.0%)	14 (3.1%)	69 (15.3%)	122 (27.1%)	226 (50.3%)	348 (77.5%)
Locating information for warfarin dose	2 (0.4%)	1 (0.2%)	5 (1.11%)	28 (6.2%)	413 (91.9%)	441 (98.2%)
Locating information for insulin dose	3 (0.6%)	1 (0.2%)	5 (1.1%)	20 (18.7%)	420 (64.5%)	440 (97.9%)
Sufficient space/ font size of instructions	34 (7.5%)	2 (0.4%)	16 (3.5%)	81 (18.0%)	346 (77.5%)	427 (95.1%)
Ability to understand written instructions	0 (0.0%)	0 (0.0%)	6 (1.3%)	13 (2.8%)	430 (95.7%)	443 (98.6%)
Space for medicines given	10 (2.2%)	2 (0.4%)	18 (4.0%)	77 (17.1%)	342 (76.1%)	419 (99.3%)

frequently (i.e. 2 hourly)						
Space for medicines given infrequently (i.e. weekly)	9 (2.0%)	4 (0.8%)	36 (8.0%)	97 (21.6%)	303 (67.4%)	400 (89.0%)
Clarity/user friendliness	1 (0.2%)	2 (0.4%)	16 (3.5%)	42 (9.3%)	391 (87.0%)	433 (96.4%)

Of note is the combined score of 77.5% in relation to staff survey respondent comments about the size of boxes in which they are required to document medication administration. The high satisfaction score is at odds with that reflected in the comments section of this question in which respondents stated that the smallness of signature boxes was an issue for many respondents. However the use of colour was seen as a significant feature for most respondents as *'It assists with highlighting important information.'*

Table 9: Survey responses on the importance of specific features of medication charts for assisting medicines administration (Question 8a)

In relation to medication management in your facility, how would you rate your level of satisfaction with the following?	Not useful-----Very useful					Combined scores 4 + 5
	1	2	3	4	5	
Time spent requesting scripts for medications charted	53 (11.8%)	46 (10.2%)	132 (27.3%)	88 (19.5%)	130 (28.9%)	218 (48.5%)
Documenting medications given/refused/omitted	16 (3.5%)	27 (6.0%)	103 (22.9%)	146 (32.4%)	157 (34.9%)	303 (67.4%)
Ease of copying/scanning/faxing the chart	23 (5.1%)	39 (8.6%)	89 (19.8%)	115 (25.6%)	183 (40.7%)	298 (66.3%)

6.6 Staff Survey Question 9: *Where do you think is the most suitable place to list non-prescription items?*

Question 9 was developed to explore useability and safety issues considered in the *Analysis of residential aged care facility medication charts* and recent literature describing increased use of over-the-counter non-prescribed medicines amongst older people. Nutritional supplements are addressed specifically in Question 10. Recommendation 6 from the *Analysis of residential aged care facility medication chart* states,

Incorporate separate, specific fields for non-prescription medicines and nutritional supplements.

Medicines that can be supplied and PBS claimed from the NRMC will also require specific information fields whereas many over-the-counter non-prescribed medicines are not PBS listed. Combining the two on the NRMC raises priority issues for the limited space on the NRMC.

Aged Care Accreditation Standards Expected Outcome 2.7 requires that 'Residents' medication is managed safely and correctly' without distinction between prescription and non-prescription items. Medication system compliance with the accreditation standards relies on the assessment of multiple system and process aspects including 'proper

recording and of medication orders'. Safely communicating essential medicines information to all health professionals involved in medication management, including the primary prescriber, requires that this information be accessible and clearly documented. The issue is whether the information should be available on the NRMC, on a chart that attaches to the NRMC or on a chart separate to the NRMC. To explore current practice and preferences, Question 9 had three sections describing different sections for documenting each with a Likert score from 1 to 5 (1 being the worst and 5 the best). Each section also had a comment section for respondents to provide more detail about their preferences.

Findings related to Question 9 were not as decisive as other questions in the survey, ranging from 30.9% to 68.1%. However staff survey respondents favoured non-prescribed medicines being on or with the medication chart with positive scores of 47.6% (on the NRMC with prescribed medicines) and 68.1% (on the NRMC separate from prescribed medicines). See Table 10 below.

These outcomes were confirmed by the negative responses for 'not on the medication chart' which scored a total of 60.7% (a combined score of 1 and 2) while non-prescribed medicines 'not on the medication chart' rated a positive response of only 30.9%. The comments section identified recording creams and moisturisers on the medication chart as the main concern.

Respondents indicated that non-prescription medicines are best located on the medication chart separate to prescription medicines with a score of 68.1%. This is supported by the negative score (a combined score of 1 and 2) against this proposition that was 19.5% whereas the combined negative score for locating non-prescription medicines apart from the medication chart was higher at 60.7% indicating the view that the worst location for non-prescribed medicines is not on the medication chart.

Table 10: Survey responses to best and worst location for non-prescription medicines on medication charts

Where do you think is the most suitable place to list non-prescription items?	Not useful-----Very useful					Combined scores 4 + 5
	1	2	3	4	5	
On the medication chart with prescribed medicines? (same page)	115 (25.6%) 43.2% (1+2)	57 (17.6%)	63 (14%)	32 (7.1%)	182 (40.5%)	214 (47.6%)
On the medication chart separate from prescribed medicines? (different page)	70 (15.5%) 19.5% (1+2)	18 (4%)	55 (12.2%)	61 (13.5%)	245 (54.5%)	306 (68.1%)
Not on the medication chart?	244 (54.3%) 60.7% (1+2)	29 (6.4%)	37 (8.2%)	8 (1.7%)	131 (29.1%)	139 (30.9%)

The Question 9 comment section did not contain many inconsistencies. Cogent reasons were given to support different points of view about the location of the non-prescription medicines. The following selection of respondent comments reflects reasons provided for each option.

a) On the medication chart with prescribed medicines? (same page);

- *'all medications on the chart to ensure that it is given;'*
- *'yes so they don't get overlooked;'*
- *'if it isn't written it isn't given;'*
- *'we are not able to give these without a Drs order so they would need to be ordered by the GP anyway;'*

b) On the medication chart separate from prescribed medicines? (different page)

- *'a different page as it does not get mixed up with regular medication orders, easy to scan;'*
- *'Should have 1 page implemented for them;'*
- *'I believe there is a necessity to keep a record of what is been taken inclusive of creams;'*
- *'I manage a low care facility - everything needs to be charted or it is more likely to be missed by staff;'*
- *'All medications whether prescribed or over the counter should be charted to minimise risk of interactions that staff may not be aware of and also the doctor is aware of all medications that the resident is taking;'*
- *'All over the counter & complementary medication and creams that GP orders should be recorded on medication chart;'*
- *'All therapeutic substances given to our residents need to be authorized and on the chart;'*
- *'Allows administration and monitoring of often very pharmacologically active substances which should be medically overseen;'*
- *'I believe that OTC drugs should be on a separate page or in a separate box to ensure that they can be identified as 'non essential' particularly when residents are unable to take their medications due to anxiety, swallow, behaviour etc;'*
- *'I think non prescribed item should be on another page, not on the same page as it will be confusing;'*
- *'Complimentary meds and vitamins not prescribed by the doctor would be well placed on a page on their own even if only to alert staff of residents, other tablets;'*
- *'We are regularly told by auditors that if you put something on the resident or give them something to swallow it MUST be written on the medication chart, otherwise it is not legal to administer;'*
- *'We require the GP to write an order for over the counter/complementary/vitamins therefore adequate space is required to do this;'*

c) Not on the medication chart?

- *'Different sheet for treatments i.e. skin cream or supplementary drinks;'*
- *'Moisturising lotions definitely do not have a place on med charts;'*
- *'Consideration should be given to whether there is an expectation to sign for them – e.g. moisturising creams. Also whether the resident self administers these meds e.g. Vitamins/Essential oils etc;'*

- *'depending what it is and who is administering;'*
- *'Care workers are able to apply creams etc which are purchased over the counter. If written on the Medication chart, it is possible that it would not be signed, or that staff would sign, but not know whether the creams had been applied. It is NOT medicated;'*
- *'Routine moisturisers should not be on the chart, unless GP has a specific order;'*

6.7 Staff Survey Question 10: Where do you think is the most suitable place to list nutritional supplements?

Question 10 was developed to explore safety issues considered in the *Analysis of residential aged care facility medication chart* and in response to recent literature describing an increased use of nutritional supplements amongst older people living in residential aged care at risk of weight loss and for those who require high protein supplements for chronic wound care (Vittoria Pontieri-Lewis 2012). Non-prescription medicines are addressed in Question 9. Question 10 relates exclusively to nutritional supplements. Recommendation 6 from the *Analysis of residential aged care facility medication chart* states,

Incorporate separate, specific fields for non-prescription medicines and nutritional supplements.

Some nutritional supplements can be supplied and PBS claimed and will use PBS fields on the NRMC. However many nutritional supplements are not PBS listed but, if ordered on the NRMC, will require space. Experience with the NIMC and nutritional supplements include supplements mistaken for medicines and administered by incorrect routes. *Aged Care Accreditation Standards Expected Outcome 2.10* requires that 'Residents receive adequate nourishment and hydration.' Meeting this outcome requires assessment of multiple medication safety aspects including 'medication instructions that take into account residents' nutritional and fluid needs as appropriate'.

Similar to the issues in Question 9, safely communicating essential medicines information to all health professionals involved in medication management, including the primary prescriber, requires that this information be accessible and clearly documented. The issue is whether the information should be available on the NRMC, on a chart that attaches to the NRMC or on a chart separate the NRMC. To explore current practice and preferences, Question 10 had three sections describing different sections for documenting each with a Likert score from 1 to 5 (1 being the worst and 5 the best). Each section also had a comment section for respondents to provide more detail about their preferences.

Similar to Question 9 responses, findings related to Question 10 were not as decisive as other questions in the survey, ranging from 38.0% to 61.2%. However staff survey respondents favoured nutritional supplements being on or with the medication chart with positive scores of 53.0% (on the NRMC with prescribed medicines) and 61.2% (on the NRMC separate from prescribed medicines). See Table 11 below.

These outcomes were confirmed by the negative responses for 'not on the medication chart' which scored a total of 52.2% (a combined score of 1 and 2) while nutritional supplements 'not on the medication chart' rated a positive response of only 38.0%. Respondents indicated that nutritional supplements are best located on the medication chart separate to prescription medicines with a score of 61.2%. This is supported by the negative score (a combined score of 1 and 2) against this proposition that was 14.4% whereas the combined negative score for locating nutritional supplements with prescription medicines was higher at 36.5% indicating that this was not the preferred option. Staff

survey respondents indicated that the worst location for nutritional supplements is not on medication charts confirmed with a negative response score of 52.2% (a combined score of 1 and 2). See Table 11 below.

Table 11: Survey responses to best and worst location for nutritional supplements on medication charts

Where do you think is the most suitable place to list nutritional supplements?	Not useful-----Very useful					Combined scores 4 + 5
	1	2	3	4	5	
On the medication chart with prescribed medicines? (same page)	124 (27.6%) 36.5% (1+2)	40 (8.9%)	48 (10.6%)	34 (7.5%)	204 (45.4%)	238 (53.0%)
On the medication chart separate from prescribed medicines? (different)	42 (9.3%) 14.4% (1+2)	23 (5.1%)	109 (24.2%)	50 (11.1%)	225 (50.1%)	275 (61.2%)
Not on the medication chart?	205 (45.6%) 52.2% (1+2)	30 (6.6%)	43 (9.5%)	9 (2.0%)	162 (36.0%)	171 (38.0%)

Similar to Question 9, the Question 10 comments section did not contain many inconsistencies. Cogent reasons were given to support different points of view about the location of the nutritional supplements. The following selection of respondent comments reflects reasons provided for each option.

a) On the medication chart with prescribed medicines? (same page);

- *‘on the same chart as the medications that way supplements are documented and that way staff have seen if they have been refused;’*
- *‘Ensures regimen is followed, nutritional state of residents are maintained, can be assessed when given;’*
- *‘If staff are required to sign off the have given supplement on the same page as prescribed medications would work best;’*
- *‘This is good idea to put on the same page because it will be reminded everyday and at the same time, I agree with that at least we can do something everyday and at the same time.’*

b) On the medication chart separate from prescribed medicines? (different page)

- *‘Acknowledges need for dietary supplements;’*
- *‘It would be good to refer to 1 chart and see everything that a resident is on. However, from a compliance perspective, it could be impossible to manage if signage was an expectation as well - due to the different levels of staff who assist residents with ‘products’;’*

- *'Encourages regular and monitored administration;'*
- *'If documented on charts then staff that do not work regularly are aware that the resident is on the supplement and a way of monitoring that the resident is getting the supplements;'*
- *'If it is a required supplement for PEG needs it is important for a signature to be seen'*
- *'it is better to write on a separate page on the drug chart with the heading nutrition supplement chart, if it is kept separately it may not be checked and the resident may not get it;'*
- *'It should be on a med chart always good "evidence";'*
- *'MO should be aware of any nutritional supplements their patient is having and need evidence that these are given and also a better reminder to staff to administer;'*
- *'Nutritional supplements are often required and recommended by an RN or dietician;'*
- *'Nutritional supplements can be ordered by health professionals other than the doctor;'*
- *'Provide holistic picture of all care interventions and tracking of nutritional and vitamin supplementation.'*

c) Not on the medication chart?

- *'They are not medication;'*
- *'This is not medication;'*
- *'As a facility, our nutritional supplements are managed by catering staff who have their own sign sheet and this works well for us.'*

6.8 Staff Survey Questions 11a and 11b: Likes and dislikes

Approved Provider Survey Questions 8 and 9: Likes and dislikes

Both the staff and approved provider surveys contained the following polarised questions: 'Which aspect of the medication chart currently in use in your facility do you *dislike* the most and why?' and 'Which aspect of the medication chart currently in use in your facility do you *like* the most and why?' These questions provided participants with an opportunity to speak generally about medication charts and their experiences without reference to any particular aspect or feature. In terms of survey design, polarised questions also have the added benefit of determining false agreement and false disagreement amongst the participants when compared to the more specific responses throughout the surveys. In other words, the responses in polarised questions, and the degree of difference between 'liking and disliking', have the ability to confirm or negate dominant themes and is a strong predictor of respondent sentiment. The responses to these questions also provided new dialogue from the respondents in relation to the format of the medication chart.

Responses about aspects of current medication charts that are disliked identified the following:

- Size of signature boxes too small to complete in a legible manner;
- Insufficient space to chart and sign for PRNs (as required medicines) and nurse-initiated medications;
- No space to record administration of telephone orders; and
- No space to record variable dose medicines and associated laboratory results.

The responses from this particular question did reveal a significant new dialogue about the preferences for either a multi-loose leaf sheet format or a booklet format commonly seen in medication charts in RACFs. A further preference for typed over hand written medicine orders also received much comment from the respondents in the staff survey and the approved provider survey question of 'likes and dislikes' of medication charts. The responses from both staff survey and approved provider survey respondents focused heavily on a comparison between the common RACF medication chart formats of booklet and single page sheet medication charts. Staff survey respondents preferred the booklet format because the medicine order was directly located next to the administration signatures section ensuring that they knew which medicines were being administered. Respondents were also confident that all information relevant to the resident and medication safety was wholly contained in the booklet and this had the added bonus of being efficient in that respondents didn't have to seek additional, separate information. The approved provider survey results also identified the booklet format as favourable for auditing as it provided a central point for assessing medication safety compliance. However, the respondents also stated strongly that they disliked the handwritten component (i.e. medicine order) of the booklet format of medication charts, as it was often illegible, difficult for respondents to read and resulted in a perceived risk of increased error in the administration of medicines to residents. The multiple, separate pages medication chart, where the residents medicine orders were typed on a single page by pharmacist (signed by the prescriber), combined with separate signing sheets for administration, also caused major angst for respondents. The major dislike of this system focussed on the separate signing sheets in which administering staff could not visually align the administration signature box with the medicine order. Respondents stated that this compromised their confidence such that they were unsure of how they would know if residents received the correct medicine when all that staff had to refer to was a signing sheet and not the medicine order itself. In reality, the medicine order was available to staff on a separate page, but given the extensive time that staff took to complete the medication round, workload and time constraints, staff practices tended not to check between administration and prescriber pages.

There were many, often strong, negative comments about current RACF medication chart formats. A large number of respondent comments related to dissatisfaction with computer-generated, printed medication order sheets, supplied by pharmacy, that were separate to the medication administration signing sheets. Respondents expressed ongoing frustration with:

- Multiple, and potentially confusing, reprints of the sheets as a result of medicine changes and updates;
- Onerous time required for RACF auditing purposes;
- Loss of information between frequent versions of the printed medication order sheets that were filed away at RACFs;

- Uncertainty about the exact numbers of pages of medication orders that existed for each resident at any one time;
- Limited or no access to updated sheets after hours and weekends; and
- Complaints from medical practitioners about the lack of consolidated medicine prescribing and administration history.

Computer-generated hard copies of medication charts that require recommencement and reprinting following a change in prescribed medicines was cited as a major system inefficiency and a potential safety risk through irregular version control.

In contrast, negative comments related to handwritten paper-based medication charts were less frequent and related exclusively to the illegibility of medical practitioner handwriting.

Comments referring to booklet/chart formats expressed a preference for resident information, medicine orders and administration signatures located together with a clear layout and defined number of pages. Comments supported easy access to necessary information and reassurance that items could not go missing, as with single pages, and that staff were less likely to miss medicines, resident allergies and recent medicines history.

Some instances were cited when residents were prescribed many medicines and had more than one medication chart, as the single chart did not provide enough prescribing space. In this instance, staff indicated that there was more than one chart by writing on the medication chart 'chart 1 of 2' and 'chart 2 of 2'. Respondents stated that this was preferable to multiple single pages and that it was also more user-friendly for residents and their carers if they needed to know information about their medicines.

The following commentary was provided by respondents in relation to printed sheets of medicine prescribed and generated by the pharmacy following a medical practitioner ordering.

Medication changes/pharmacy

When there's medication changes, it's not updated by pharmacy even when new medication is delivered. There's no evidence on the chart that staff already given the medication.

After medication changes, it's impossible to find the old medication record as there's no record kept.

The reliance on an offsite pharmacy to ensure medication profiles are up to date and accurate. We are constantly having to request that they correct information on the charts. We RN's could do the job way better than the pharmacists!!!

There is not enough space for clear signature signing, warfarin, patches, prn medications and short course medications are in small areas on the chart and not necessarily on the front page.

Because it is electronically generated I need to dedicate a staff member once every 3 months to check with the pharmacist it is correct.

Paper-based

Paper based med chart - have to make too many adaptations in order for it to work properly - colour administration times by hand for example

Medical Officers handwriting not legible at times. At times Known Allergy stickers not placed on chart

Loose leaf

Where do I start! Lots of loose leaf charts, some hand written by MO, some typed by Pharmacy. No trigger for review of medication chart. Some missing administration information.

Because it is electronically generated I need to dedicate a staff member once every 3 months to check with the pharmacist it is correct. We are not funded for that. Medication sheets do not last the distance because they are heavy use documents used by many people over 24 hour period. Storage system of charts need to be considered ring folders cheap but not effective.

Currently using [brand] signing sheets and variety of order sheets depending on GPs practice Current system can be confusing

I do not like the way that everytime a medication change happens that the chart has to be reprinted and sent for signing again. Also it is often difficult to track nurse initiated medications and phone orders as they are recorded separately and then when the page is full, they are filed. We evaluate each resident quarterly and to chase up all the nurse initiated meds and phone orders can be a nightmare. At least if it is in one folder like the old charts then you can track them more easily. We do not have our own pharmacy at our facility and we have difficulty with the pharmacist keeping up with any changes. Not one day goes by when we would have all our charts operating well without some sort of mistake or change to be made.

If changes are made over the weekend then they are not made electronically till the Monday, therefore if changes are not handed over then medication errors are made. There is nowhere for the Doctor to sign if he writes up a new medication. I realise that there is a signature on the bottom of each page, once signed, but how legal is it if he writes up a new medication a few days later.

There is a time lapse in between the GP writing up the medication, the medication being put up on the [brand] and then when the new chart is printed and then sent to the GP for signing.!!!

It is the most paper unfriendly system I have ever used. We often have medication changes, then are required to print medication chart again to ensure it is updated. We then have to update and print out universal sign sheets in case of computer failure. GP's complaining about having no 'history' on the drug chart due to the continual updating of charts.

Only having signing space for signing for an entire [brand] pack bubble, with no provision for (e.g.) a resident refusing a single tablet. Not having the allergies and diagnoses on the charts (our pharmacy says it's impossible to do for some reason)

The design of the signing sheets are very un-user friendly, with cramped spaces and different types of medications grouped (e.g. oral solid dose, non-packed, S8, etc.). Also A4 landscape, so there may be multiple pages if a resident has a complex regime, and that causes errors. Also, every time there is a medication change, the chart is re-printed, and tracking previous versions can be tricky (and also involve multiple pages for medically unstable residents). We're still using hard copies, and I don't see us going to an electronic system within the next 3 - 5 years.

7. Summary

Currently, development of the NRMC has achieved the first iteration, is undergoing human factor testing (which will be reported shortly) and is being considered by the NRMC Reference Group as the basis for phased implementation. It is expected that further refinement of safety fields and layout of the chart will occur based on survey findings and other stakeholder engagement.

The findings of the surveys considered in this report are of importance in the NRMC development and refinement process. They confirm findings in the large analysis of RACF medication charts undertaken by the Commission in 2011 and which are reflected in the NRMC. They also support outcomes from the extensive human factors testing of the NRMC undertaken to date. The survey outcomes provide further evidence for decisions on the NRMC agreed by the National Residential Medication Chart Reference Group and a basis for further decisions in relation to content, format and other design issues.

Phased implementation of the NRMC will test the NRMC in approximately twenty RACFs which will provide opportunities for it to be exposed to many of the varieties of medication management in RACFs.

The Commission is committed to improving the safety and quality of medication management in aged care context and sees standardization of medication charting, and the associated processes as an important basis for achieving improvements. It is also committed to acquitting the commitment in partnership with consumers, health professionals and industry stakeholders.

While NRMC Project outcomes are yet to be realised, the opportunity for a national standardised medication chart based on the best available evidence continues to be supported by evidence in other healthcare settings and by responses from stakeholders in the residential aged care sector. The expertise and knowledge of medication management that stakeholders have brought to the project is shaping the project outcomes.

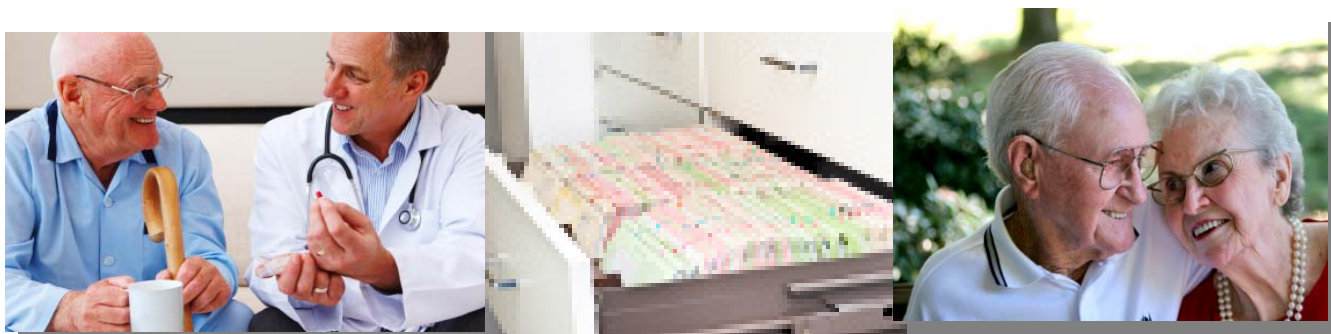
8. References

1. Australian Bureau of Statistics, 2008, *Census At School*, Australia, 'Table 04. Preferred hand of students who completed the CensusAtSchool questionnaire', time series data comparisons of 2006 to 2008 summary data, viewed 12 March 2012, <<http://www.abs.gov.au/websitedbs/CasHome.nsf/4a256353001af3ed4b2562bb00121564/387ad78ac6c4a953ca25749b0013b843!OpenDocument>>
2. ACSQHC 2011, *Analysis of residential aged care facility medication chart*.
3. Aged Care Standards and Accreditation Agency 2011. *Results and processes guide for quality aged care assessors*.
4. Aged Care Act 1997 Accreditation Standards
5. Coombes I., Stowasser A, Reid C and Mitchell C. The national inpatient medication chart: critical audit of design and performance at a tertiary hospital. *Medical Journal of Australia* 2008; 188 (12): 732-733.
6. Commonwealth Government 2011. Approved Providers of Aged Care Services 2011.
7. Vittoria Pontieri-Lewis "The role of nutrition in wound healing". *MedSurg Nursing*. 22 May, 2012.

Appendix 1

**AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE**

Residential Aged Care Facility Medication Chart Staff Survey 2012



National Residential Medication Chart Project

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Suggested citation

Australian Commission on Safety and Quality in Health Care 2012, *Residential Aged Care Facility Medication Chart Staff Survey*, ACSQHC, Sydney.

Acknowledgment

Many individuals and organisations have freely given their time, expertise and documentation to support the development of this document. In particular, the Commission wishes to acknowledge the valuable contributions by National Residential Medication Chart Reference Group members, approved providers, individual residential aged care facilities and the University of Queensland School of Psychology in the development of this survey. The involvement and willingness of all concerned to share their experience and expertise is greatly appreciated.

This paper is available on the Commission website: www.safetyandquality.gov.au

Medication charts in aged care

Thank you for taking time out of your day to assist us in the development of a national residential medication chart for use in aged care. We value your input and look forward to receiving your feedback about medication charts.

Background

The *National Residential Medication Chart Project* is developing a standard medication chart for use in Commonwealth-funded residential aged care facilities nationally. To acquit this task, the project will:

1. Develop standardised information fields and layout for a standard medication chart; and
2. Incorporate into the chart required fields to enable pharmaceutical supply and Pharmaceutical Benefits Scheme (PBS) claiming directly from the chart.

Standardising medication charting in residential aged care facilities (RACFs), and eliminating the need for a PBS script, has the potential to improve the safety and quality of medications in RACFs for residents and to improve work flows for health professionals working in the sector.

The project will result in:

1. A standard paper-based medication chart designed for use in Australian RACFs; and
2. Essential elements for safe electronic medication management systems in RACFs.

This project is managed by the Australian Commission on Safety and Quality in Health Care (the Commission), funded by the Department of Health and Ageing (the Department) under the *Fifth Community Pharmacy Agreement* and governed by funding arrangements between the Department and the Commission.

This survey

Target audience

Residential aged care staff (RNs, ENs, EENs, AINs, PCAs, GSOs, and/or Managers) involved in the administration of medications to residents from a medication chart.

Aim

This survey is aimed at getting a better understanding of your points of view about medication charts. This will help us develop a national chart that is user friendly and works for aged care facilities. It is important to us that we understand *your* thoughts and ideas so that we can incorporate them into the eventual design.

Confidentiality

We do not need to know your name and all information gathered in this survey is confidential. However, if you would like to be contacted further regarding your responses please provide us with your details.

Return your survey to our team

Please return completed surveys by **13 February 2012** to the NRMCM Project Team by fax on (02) 9126 3613 or via e-mail to nrmc@safetyandquality.gov.au.

Thanks again and we look forward to receiving your input!

Medication charts in aged care: Staff survey

Instructions

The survey consists of 18 questions. On some questions you score on a 5 point scale (1 indicating a negative response and 5 indicating a positive response) by **circling the preferred response**. On other questions, you are asked to provide an answer by indicating which answer fits best.

Questions have room for comment. Please use this if you have any ideas and thoughts as this information will be used in the development of the *National Residential Medication Chart*. Any information given is considered important; after all it is you who will probably be using this chart.

Q1

How useful are the following in identifying residents?

	not useful			very useful	
a. Preferred name	1	2	3	4	5
b. Current photograph	1	2	3	4	5
c. Gender	1	2	3	4	5
d. Date of birth	1	2	3	4	5
e. Age in years	1	2	3	4	5
f. Room number	1	2	3	4	5

Please provide any other information you can think of that would be useful in identifying residents and why?

Q2

How useful is the following information when administering medicines to residents?

	not useful			very useful	
a. Primary diagnosis	1	2	3	4	5
b. Swallowing difficulties	1	2	3	4	5
c. Dementia/cognitive issues	1	2	3	4	5
d. Stroke	1	2	3	4	5
e. Language barrier	1	2	3	4	5
f. Crush medicine	1	2	3	4	5
g. Insert via PEG	1	2	3	4	5
h. Resistive to pills	1	2	3	4	5

Please provide any other information you can think of that would assist in administering medicines to residents and why?

Q3

How long do you think a chart should be and why?

Q4

How many prescribed medicines do you think each chart should be able to list and why?

Q5

What do you think would be the average number of medications prescribed for individual residents in your facility?

Q6

a. Approximately, how many residents are taking warfarin in your facility? _____

b. Approximately, how many residents are taking insulin in your facility? _____

Q7

How would you rate the importance of these features in assisting with medication administration?

	not important					very important
	1	2	3	4	5	
a. Size of boxes to sign in	1	2	3	4	5	
b. Locating information for warfarin dose	1	2	3	4	5	N/A
c. Locating information for insulin dose	1	2	3	4	5	N/A
d. Sufficient space/ font size of instructions	1	2	3	4	5	
e. Ability to understand written instructions	1	2	3	4	5	
f. Space for medicines given frequently (ie:2hrly)	1	2	3	4	5	N/A
g. Space for medicines given infrequently (ie:wkly)	1	2	3	4	5	N/A
h. Clarity/user friendliness	1	2	3	4	5	

Comment _____

Q8 a

In relation to medication management in your facility, how would you rate your level of satisfaction with the following?

	poor				high
a. Time spent requesting scripts for medications charted	1	2	3	4	5
b. Documenting medications given/refused/omitted	1	2	3	4	5
c. Ease of copying/scanning/faxing the chart	1	2	3	4	5

Comment _____

Q8 b

Do you think that the use of colour on medication charts is useful and why?

Q9

Where do you think is the most suitable place to list non-prescription items? (*E.g. over the counter/complementary medicines/vitamins and moisturising creams*)

	worst			best	
a. On the medication chart with prescribed medicines? (same page)	1	2	3	4	5

	worst			best	
b. On the medication chart separate from prescribed medicines? (different page)	1	2	3	4	5

	worst			best	
c. Not on the medication chart?	1	2	3	4	5

Q10

Where do you think is the most suitable place to list nutritional supplements?

a. On the medication chart with prescribed medicines? (same page) worst
1 2 3 4 5 best

b. On the medication chart separate from prescribed medicines? (different page) worst
1 2 3 4 5 best

c. Not on the medication chart? worst
1 2 3 4 5 best

Q11

a. Which aspect of the medication chart currently in use in your facility do you *dislike* the most and why?

b. Which aspect of the medication chart currently in use in your facility do you *like* the most and why?

Q12

If you could change anything in the medication chart currently in use in your facility, what would it be and why?

Q13

If you have residents who administer their medications, what do you think is the best way of documenting that this has occurred and why?

Q14

In which care level do you work?

- a. High care
- b. Low care
- c. Both

Q15a)

Which of the following best describes your position?

- a. RN
- b. EN
- c. EEN
- d. AIN
- e. PCA
- f. CSE
- g. GSO
- h. Manager
- i. Other (please specify) _____

Q15a)

Which hand do you use the most documenting and completing a medication chart?

- a) your right hand
- b) your left hand
- c) you can use both (you are ambidextrous)

Q16

Approximately, how many residents at your facility?

Q17

The organisation that runs your home is

- a. Religious-based
- b. Community based
- c. Government based
- d. Private
- e. Charitable
- f. Other (please specify) _____
- g. Unsure

Q18

Do you have any other comments that you would like to make about a standard medication chart for aged care?

Thank you for giving us your thoughts and ideas!

If you wish to be sent feedback on the results of the survey, or wish to be involved in further surveys for this project, please provide your contact details below. *Please note that this is optional.*

Name: _____

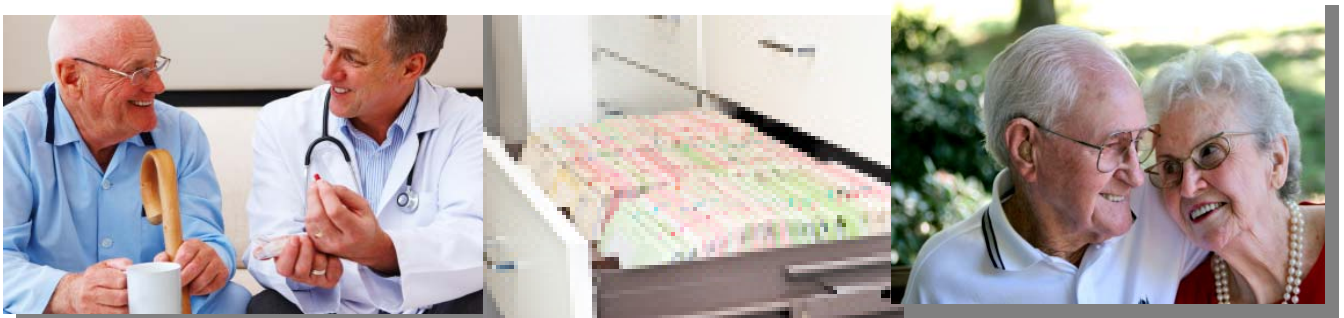
E-mail: _____

Phone number: _____

Results of this survey (de-identified), and further information on the *National Residential Medication Chart Project*, will be published on the Commission's web site www.safetyandquality.gov.au

**AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE**

Residential Aged Care Facility Medication Chart Approved Providers Survey 2012



National Residential Medication Chart Project

Medication charts in aged care

Thank you for taking time out of your day to assist us in the development of a national residential medication chart for use in aged care. We value your input and look forward to receiving your feedback about medication charts.

Background

The *National Residential Medication Chart Project* is developing a standard medication chart for use in Commonwealth-funded residential aged care facilities nationally. To acquit this task, the project will:

3. Develop standardised information fields and layout for a standard medication chart; and
4. Incorporate into the chart required fields to enable pharmaceutical supply and Pharmaceutical Benefits Scheme (PBS) claiming directly from the chart.

Standardising medication charting in residential aged care facilities (RACFs), and eliminating the need for a PBS script, has the potential to improve the safety and quality of medications in RACFs for residents and to improve work flows for health professionals working in the sector.

The project will result in:

3. A standard paper-based medication chart designed for use in Australian RACFs; and
4. Essential elements for safe electronic medication management systems in RACFs.

This project is managed by the Australian Commission on Safety and Quality in Health Care (the Commission), funded by the Department of Health and Ageing (the Department) under the *Fifth Community Pharmacy Agreement* and governed by funding arrangements between the Department and the Commission.

This survey

Target audience

Residential aged care approved provider managers involved in medication management in their residential aged care facilities.

Aim

This survey is aimed at getting a better understanding of your points of view about medication charts. This will help us develop a national chart that is user friendly and works for aged care facilities. It is important to us that we understand *your* thoughts and ideas so that we can incorporate them into the eventual design.

Confidentiality

We do not need to know your name and all information gathered in this survey is confidential. However, if you would like to be contacted further regarding your responses please provide us with your details.

Return your survey to our team

Please return completed surveys by Friday April 12th 2012 to the NRMC Project Team by the Survey Monkey link.

Thanks again and we look forward to receiving your input!

Medication charts in aged care: Approved provider survey

Q1

In which state or territory are you located?

- a. Australian Capital Territory
- b. New South Wales
- c. Northern Territory
- d. South Australia
- e. Queensland
- f. Tasmania
- g. Victoria
- h. Western Australia

Q2

The organisation that runs your home is?

- a. Religious-based
- b. Community based
- c. Government based
- d. Private
- e. Charitable
- f. Unsure
- g. Other (please specify)?

Q3

Approximately, how many residents are at your facility?

Q4

What care level are the residents in your facility?

- a. High Care
- b. Low Care
- c. Both
- d. Other (please specify)?

Q5

What types of staff do you have administering medications in your facility?

- a. RN
- b. EN
- c. EEN
- d. AIN
- e. PCA
- f. CSE
- g. GSO
- h. Manager

Other (please specify)

Q6

Does your organisation pay for medication charts?

- a. Yes
- b. No (please specify)

Q7

What duration should a chart ideally be and why?

Q8

List three things that you dislike the most about medication charts

1. _____

2. _____

3. _____

Q9

List three things that you like the most about medication charts

1. _____

2. _____

3. _____

Q10

Do you have any other comments that you would like to make about a standard medication chart for aged care?

Results of this survey (de-identified), and further information on the *National Residential Medication Chart Project*, will be published on the Commission's web site www.safetyandquality.gov.au