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1 **Dietetic care of hip fracture patients across Australia: are we doing enough?**

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11 **Abstract**

12 **Aim:** To determine the composition of usual nutrition care provided by Australian
13 dietitians to patients with a falls related femoral neck fracture.

14 **Methods:** A cross-sectional survey administered via the World Wide Web using
15 Survey Monkey to dietitians across Australia.

16 **Results:** One hundred and sixty eight dietitians working with patients with a femoral
17 neck fracture in Australia responded to the survey. Few dietitians (n=7) indicated
18 they worked in the community setting. Nutritional screening was used among
19 respondents (n=93), but 32/93 indicated they did not use a validated tool. Most
20 commonly used interventions included strategies to increase intake of nutrients, such
21 as provision of nourishing meals, snacks, and oral supplements.

22 **Conclusions:** Some concerns remain regarding provision of optimal nutritional care
23 of femoral neck fracture patients in Australia. There were few respondents working

1 in the community with falls related femoral neck fracture patients, with a greater
2 number of dietitians working in the metropolitan area responding to the survey. The
3 Dietitians working in this area are implementing a great variety of screening methods,
4 with a large number of using non-validated screening tools. Clearer guidelines for
5 health professionals involved in femoral neck fracture aftercare would be beneficial to
6 standardise care in this area. A useful first step for dietitians would be to advocate for
7 the use of evidence-based practice resources in selection of site and age appropriate
8 nutrition screening tools.

9

10 **Key Words:** Femoral neck fractures, Malnutrition, Ageing.

11

12

1 **Introduction**

2 Femoral neck fracture is a serious cause of morbidity and mortality in Australia
3 currently. There were an estimated 15,000 femoral neck fractures in Australia in 2006,
4 and this figure is suggested to increase to over 24,000 by 2021¹. Along with an
5 increase in the incidence of hip fractures in Australia, an increase in the total cost
6 associated would be expected. Data indicates the cost of hip fracture is projected to
7 increase from \$7.2 billion in 1984 to \$16 billion in 2040 in America². More recent
8 American data has estimated the lifetime cost of hip fracture as \$81,300, with nursing
9 costs making up almost half of that amount³. A femoral neck fracture in older adults
10 can be the first step in a decline in health, functional capacity, and independence.
11 Mortality in the 12 months following a femoral neck fracture has been reported as
12 high as 25%⁴.

13

14 Malnutrition among both the elderly and femoral neck fracture patients in acute care
15 has been well documented, while the level of malnutrition in rehabilitation services is
16 much less commonly studied⁵⁻¹⁷. The level of malnutrition identified across all
17 settings varies between 6 and 78%, likely due to the variety of methods used to
18 determine a malnourished state and differences in populations studied. Seven out of
19 thirteen studies included those individuals from nursing homes or with cognitive
20 deficits which have independently been identified as risk factors for poor nutritional
21 status^{5, 7, 10, 13-16}. Excluding those studies, between 9 and 25% of femoral neck
22 fracture patients were identified as being malnourished^{8, 11-12, 17-18}. There is evidence
23 that malnutrition can be treated and can be cost effective¹⁹.

24

1 Low nutritional intake post surgery in femoral neck fracture patients has also been
2 identified. In five studies, all in the acute phase, between 75 and 100% of participants
3 did not meet their estimated energy intakes^{6, 9, 12, 15-16}. While Carlsson et al.
4 deliberately targeted those patients with poor nutritional status, Lumbers et al.
5 included all cognitively aware patients greater than 60 years old^{6, 12, 16}. An Australian
6 study found that 48% of cognitively impaired and 52% of non-cognitively impaired
7 older adults admitted with a lower leg fragility fracture (86% femoral neck fracture
8 patients), did not meet estimated energy requirements²⁰. In addition, a number of
9 studies showed association between LOS, mortality, and independence in ADLs and
10 either anthropometric or biochemical indicators of nutritional status^{5, 7, 11, 21-22}.

11 Therefore, it appears poor nutritional intake is common in falls related femoral neck
12 fracture patients, and could be a possible point for intervening to improve outcomes.

13

14 Treatment regimes including a variety of nutrition support measures such as providing
15 enteral or oral supplementation with nourishing fluids has been shown to have
16 positive effects on fluid, energy and protein intake, complications, pressure ulcers,
17 body composition, strength, functional outcomes, quality of life, length of stay, and
18 mortality^{6, 9-10, 18, 23-29}. Length of supplementation varies in the studies from only a
19 few days to six months. It appears that a longer period of treatment is associated with
20 greater improvements, however this needs further clarification²⁸.

21

22 It has been recommended that routine nutritional assessment be carried out, due to the
23 high incidence of malnutrition in this patient group, and that dietetic intervention to
24 increase protein and energy intake be undertaken where appropriate^{15, 30}. However it

1 is likely this is not being undertaken due to the frequent under-recognition of
2 malnutrition and its risks in the acute care setting ¹². While increasing evidence is
3 mounting on the impact malnutrition can have on the outcomes of these patients, and
4 its widespread nature, there are no clear guidelines on how the nutritional
5 management of these patients should occur. The aim of this study was to determine
6 the current usual nutritional care being provided to these patients by Australian
7 dietitians.

8 **Methods**

9 An online survey of dietitians with membership of the Dietitians Association of
10 Australia was administered between July 1st and September 19th 2009 in accordance
11 with ethical standards of the Flinders University Social and Behavioural Research
12 Ethics Committee (approval number 4477, approval date 28/5/09, expiry 30/10/09).

13 Dietitians were invited to take part in the survey via a weekly email alert sent to
14 members of the Dietitians Association of Australia. In the email, members providing
15 services to patients with a falls related femoral neck fracture were requested to
16 complete the survey via an online link provided via SurveyMonkey ³¹. To increase
17 response rate, participants were offered the chance to enter into a random prize draw
18 to win one of three prizes to the value of \$150.

19 Consistent with the Dillman protocol ³² a reminder was sent to the possible
20 participants via the same email alert system two months following the initial
21 notification. The results of the survey were kept on a secure server. All potential
22 participants were advised the survey was confidential.

1 The survey questions were developed using relevant literature as a guide in addition to
2 discussions with key researchers in the field. The survey included an initial question
3 on whether the participant treated femoral neck fracture patients, and those who
4 answered no were redirected to the end of the survey. The remainder of the survey
5 included 31 questions on demographics of participants, referral processes, treating
6 team organisation, early discharge programs, nutritional assessment and interventions,
7 education, and follow up. The survey was largely structured with respondents having
8 the ability to select from a list of likely options with the flexibility to include other
9 responses if an appropriate option was unavailable. For some questions more than one
10 answer was allowed. Questions were worded such that the response reflected dietetic
11 practice of the individual dietitian with the exception of questions relating to
12 implementation of screening tools, use of dietetic assistants, composition of multi-
13 disciplinary teams and early-supported discharge programs. A copy of the survey
14 questions is available on request to the corresponding author.

15 Data collected was imported into SPSS, version 17.0 (Chicago, IL, USA).

16 Descriptive statistics and graphical displays were used to present the responses. The
17 majority of responses were categorical (nominal and ordinal), and hence the
18 frequency and percentage of each response within the data set was presented.

19

1 **Results**

2 Of the 168 respondents to the survey 14 did not work with patients with a femoral
3 neck fracture and were prevented from answering practice based questions in the
4 survey. 77 (58.3%) of respondents had been practicing for less than 5 years. 108
5 (70.1%) of respondents were working in the public hospital system, 20 (13.0%)
6 private hospital system, and 21 (13.6%) in the community setting, while 5 (3.2%) did
7 not indicate where they worked. 32 (20.8%) indicated they worked in a rural or
8 remote setting, while 112 (72.7%) worked in a metropolitan or urban setting.

9
10 The number of referrals for femoral neck fractures received in the previous 3 months
11 for respondents is shown in figure 1. This includes those referrals managed by
12 automatic referral systems (e.g. routine referral of all femoral neck fracture patients).
13 The main sources of referral for patients with a falls related femoral neck fracture in
14 respondents workplace are shown in table 1. Other responses included a research trial,
15 doctors, screening processes, dietitians, dietetic assistants, case managers, or self
16 referral.

17 Ninety three out of 133 (69.9%) who completed the question indicated a nutrition
18 screening tool was being utilized at their workplace. Those tools used in the group
19 included the MST (Malnutrition Screening Tool) (n=65, 69.9%), a workplace
20 developed or modified tool (n=25, 26.9%), MNA-SF (6 items of Mini Nutritional
21 Assessment) (n=12, 12.9%), MUST (Malnutrition Universal Screening Tool) (n=6,
22 6.5% of respondents), Simple Nutrition and Appetite Questionnaire (n=3, 3.2%),
23 Short Nutritional Assessment Questionnaire (n=1, 1.1%), the Victorian HACC

1 Nutrition Risk Screening Tool (n=1, 1.1%) and the Nutrition Risk Screening and
2 Monitoring Tool (n=1, 1.1%)³³⁻³⁴.

3

4 Ninety six out of 133 (72.2%) respondents indicated a multidisciplinary team was in
5 place for care of clients with a falls related femoral neck fracture at their workplace.

6 41 out of 92 respondents (44.6%) indicated an early supported discharge program
7 (support and rehabilitation services allowing a patient to be discharged home) was
8 available for patients with a falls related femoral neck fracture at their workplace.

9 Disciplines respondents indicated as involved in early supported discharge programs
10 included physiotherapists (36 responses, 87.8% of respondents), occupational therapy
11 (33 responses, 80.5%), social work (26 responses, 63.4%), rehabilitation medicine
12 (23 responses, 56.1%), nursing (22 responses, 53.7%), dietitian (21 responses,
13 51.2%), allied health assistant (9 responses, 22.0%), surgeon (5 responses, 12.2%),
14 psychologist (2 responses, 4.9%) and nursing clinical care co-ordinator, speech
15 pathologist, discharge planner, aged care day rehabilitation team, and exercise
16 physiologist (all 1 response each, 2.4% each).

17

18 Forty six of 131 respondents (35.1%) indicated they had dietetics assistants working
19 in their workplaces. Of those, 33 (71.7%) reported dietetic assistants being available
20 to assist patients with a falls related fractured neck of femur. By far the main tasks
21 respondents indicated dietetic assistants were involved in were screening patients for
22 risk of malnutrition and assistance with choosing appropriate menu items (29
23 responses each, 63.0% of respondents). 8 respondents (17.4%) indicated dietetic
24 assistants were involved in feeding assistance with the most at risk patients. A

1 smaller number (n=7, 15.2%) indicated dietetic assistants assisted dietitians with
2 nutritional assessment of patients with a falls related femoral neck fracture. 'Other'
3 tasks carried out by dietetic assistants included assisting with weighing of patients,
4 ordering high energy high protein diets for all patients with a falls related fractured
5 neck of femur, offering high energy high protein snacks, monitoring tolerance and
6 dietary intake of patients, and educating patients on the importance of a high energy
7 high protein diet.

8

9 The main nutrition interventions the 132 dietitians who responded to this question
10 indicated they utilized with these patients are included in Table 2. Other responses
11 (3), included use of the Medpass program, supplementation with vitamins D and C
12 and Calcium and Zinc in patients, and including calcium rich foods.

13

14 Out of 130 respondents, 4 (3.1%) routinely conducted only an initial consult with
15 patients recovering from a falls related fractured neck of femur. 16 (12.3%) indicated
16 they routinely reviewed these clients once, 45 (34.6%) twice, 31 (23.8%) three times,
17 and 34 (26.2%) greater than three times.

18

19 Ninety of 127 (70.9%) respondents to the question indicated they undertook education
20 routinely with clients with a falls related femoral neck fracture. 87 (96.7%)
21 respondents indicated they would routinely educate these clients on use of small
22 frequent meals, 86 (95.6%) a high protein diet, 85 (94.4%) nourishing mid meals, 83
23 (92.2%) nourishing fluids, 80 (88.9%) use of oral supplements, 77 (85.6%) a high
24 energy diet, 31 (34.4%) the Australian Guide to Healthy Eating, 10 (11.1%) an

1 increase in meal size, 8 (8.9%) a reduction in fat intake, 4 (4.4%) an increase in
2 calcium or vitamin D intake, and 1 (1.1%) weight modification.

3

4 Eighty out of 130 respondents (67.7%) indicated they would transfer the nutritional
5 care of these clients to another health care provider after their intervention.

6 Respondents indicated they routinely transfer nutritional care of these patients to
7 included another dietitian (67 responses, 76.1% of respondents), aged care nurse (26
8 responses, 29.5%), general practitioner (18 responses, 20.5%), community health
9 nurse (5 responses 5.7%), district nurses (3 responses, 3.4%), and 14 (15.9%) 'other'
10 responses including various dietitians, CACP and EACH packages, rehabilitation
11 facilities, and dietetic assistants.

12

13 The number of respondents who indicated they agreed or disagreed with statements
14 surrounding nutrition and falls related femoral neck fracture clients is shown in table
15 3.

16

17 The most commonly indicated barriers respondents indicated to increasing their
18 services to these clients included insufficient staff (64 responses, 51.6% of
19 respondents), followed closely by insufficient referrals (61 responses, 49.2%). 21
20 respondents indicated that these patients were not currently a priority and 21 also
21 indicated that there was a lack of team approach to the treatment of these patients
22 (16.9% respondents). Only 2 respondents (1.6%) indicated lack of expertise in the
23 area limited their services to these clients. 'Other' responses to this question (13,
24 10.5%) included the short stay of some patients in hospital, lack of assistance with

1 meals for patients, and lack of value of diet in the rehabilitation of these patients by
2 other disciplines and hospital or lack of evidence for routine dietetic care. One
3 respondent indicated they had adequate services and had recently formalised routine
4 assessment and service provision to all falls related femoral neck fracture patients by
5 dietetic assistants.
6

1 **Discussion**

2 In this survey of 168 Australian dietitians, we found that we received more responses
3 from respondents in public acute care settings and metropolitan areas, compared to
4 community settings and rural areas. A variety of interventions were being utilized by
5 this group to treat these patients, but not all were evidence based. While dietitians
6 believe they can make a difference to this group, and have the skills to do so, there
7 were a number of barriers to them being more involved with this group which need to
8 be addressed to ensure optimal care of these patients.

9

10 The timing of review of clients appears appropriate when compared with the average
11 length of stay for femoral neck fractures in Australia in 2007-2008 (10.6 days) and
12 length of stay reported in studies in Australia^{29, 35-38}. The majority of responses were
13 from the public hospital sector, which also reflects the membership of DAA (personal
14 communication via email, DAA National office, 8th March 2011). However, there
15 was no information available on whether membership of DAA is affected by work
16 setting or region of work, which could have affected the responses. It appears as
17 though the number of member dietitians working within inpatient facilities is larger
18 than the number working within community nutrition, which reflects our responses³⁹.
19 But this response could be reflecting the location of the majority of work with these
20 patients and the likely larger number of dietitians working with these patients in the
21 acute settings, which reflects previous work of the authors⁴⁰. Follow up post
22 discharge is likely to be necessary given the evidence that weight loss continues for at
23 least 12 weeks post injury in this patient group²⁹. This raises the issue of whether
24 adequate dietetic services are available to those in the community for review, and

1 whether other services are taking on the role of monitoring nutritional status. In our
2 survey, respondents indicated that dietitians were their most common health worker
3 they transferred nutritional care of these clients too, however further work into the
4 mapping of interdisciplinary services providing nutritional care to elderly femoral
5 neck fracture patients after discharge is needed to clarify the range of follow up in the
6 community. This may identify opportunities to collaborate with interdisciplinary
7 services on the nutritional care of these patients, as experts in this area.

8

9 In this survey, the majority of respondents serviced the metropolitan area, which is
10 similar to membership of DAA (personal communication via email, DAA National
11 office, 8th March 2011). While 57% of Australians live in metropolitan urban areas,
12 the servicing of patients in rural areas is also an important consideration⁴¹. Especially
13 if the trend is for supporting patients in the home as early as possible following
14 surgery, and for as long as possible, the double dilemma of inadequate dietetic
15 services not only in the community but in rural areas will need to be considered.

16

17 The respondents to the survey had been practicing for few years. On contacting
18 DAA, no information was available on the range of number of practicing years of
19 member dietitians. This would reflect the system in a large number of acute hospitals,
20 where orthopaedic wards are commonly included on the rotation for new graduates,
21 who spend time working with these patients before being moved on to “specialist”
22 areas. The survey did not include any questions on any supervision being provided to
23 respondents, which may occur in the larger hospitals, and assumptions cannot be
24 made on the adequacy of the service based purely on this. Implementation of

1 appropriate systems for routine nutrition screening and the skills required for nutrition
2 assessment are entry level competencies and hence new graduates could be expected
3 to have these skills. Furthermore, despite being relatively new to the workplace,
4 respondents overwhelmingly felt their expertise available in the area was sufficient,
5 and in addition believed that nutrition was important for these clients and did assist
6 their recovery. But when asked they did identify a number of barriers to improving
7 services to these clients including insufficient allocation of staff.

8

9 Of concern however are some of the interventions listed as being undertaken by
10 dietitians in the survey, particularly the recommendation of weight loss. There is
11 good evidence that weight loss occurs swiftly in this group following surgery, and that
12 this is associated with poor outcomes^{5, 7-8, 11, 13, 21-22, 42}. There is good evidence that
13 providing nutrition support including increasing energy and protein intake through
14 oral supplements, nourishing mid meals, and providing feeding support has positive
15 effects on recovery and rehabilitation^{6, 9-10, 18, 23-24, 26-29, 43-44}. In addition, evidence
16 exists for use of vitamin D to assist in maintaining muscle mass, bone density, and
17 preventing falls and subsequent fracture⁴⁵. Effective nutritional care using evidence-
18 based and appropriate interventions is critical.

19

20 Insufficient referral was also indicated to be a barrier to providing better services to
21 these clients. The under-recognition of the malnourished patients within the
22 healthcare system is well established, and leads to patients missing out on assessment
23 and treatment^{12, 14}. It is also known that treatment of malnutrition can be effective in
24 improving patient outcomes which then translate into cost effective healthcare¹⁹.

1 Therefore, nutrition screening processes have been developed to help identify those
2 patients who are malnourished or at risk of malnutrition, so they can be treated in a
3 timely manner⁴⁶. Without use of valid and reliable screening mechanisms, it is likely
4 that malnourished patients are going unnoticed and untreated, leading to greater loss
5 of muscle mass and physical function at a time when the entire healthcare team is
6 working towards trying to maximise this to enable patients to return home as quickly
7 and as independently as possible. While screening tools were utilized by respondents,
8 a large proportion were using workplace developed tools, which may not have been
9 validated to ensure they identify appropriate patients for referrals, as recommended in
10 the recent DAA Guidelines⁴⁶. In addition, one respondent was using a tool which has
11 not been validated, the Victorian HACC Nutrition Risk Screening Tool. Therefore
12 the actual number of respondents using non-validated tools according to the
13 guidelines is 26. The guidelines include recommendations for nutrition screening
14 tools validated for use in acute settings, residential facilities, and the community, and
15 we found respondents utilized screening tools for all these settings⁴⁶. While some
16 individual markers of nutritional status have been shown to predict risk of
17 malnutrition, the use of a validated tool including multiple markers of nutritional
18 status has been shown be able to identify at risk patients more accurately⁴⁶. Screening
19 tools have been created to suit a variety of settings, and skill levels of the person
20 administering it, which are important considerations for those choosing one⁴⁶. A
21 screening tool left uncompleted due to lack of time, or completed incorrectly due to
22 difficulty in collecting some of the markers, is not useful.

23

1 Dietetic assistants were employed in the workplaces of only one third of respondents.
2 However, where they were, they were commonly used to assist patient with a femoral
3 neck fracture. Their major roles appear to be in screening patients and in the selection
4 of menu choices, both tasks which DAA and Victorian state government include in
5 their scope of practice for Dietetic Assistants⁴⁷⁻⁴⁸. Less were involved in assisting
6 clients with their meals, despite this being a task undertaken by dietetic assistants in a
7 study shown to increase nutritional intake in femoral neck fracture patients when
8 compared to a group receiving regular dietetic care including routine provision of oral
9 nutritional supplements to patients⁴³. Educating clients is another task which appears
10 within the scope of practice for Dietetics Assistants but was reported as being
11 undertaken uncommonly in this survey⁴⁷⁻⁴⁸. Given that insufficient staff or
12 insufficient referrals were consistently reported as the two largest barriers to dietitians
13 providing more services to this group, the use of dietetic assistants to undertake
14 supportive tasks is an area worthy for further investigation and consideration, as a
15 possible novel solution.

16

17 Previous guidelines released by SIGN on the management of femoral neck fracture in
18 older people included a high level recommendation of providing high energy and
19 protein supplementation to patients in rehabilitation and that subsequently “Patients’
20 food intake should be monitored regularly, to ensure sufficient dietary intake”⁴⁹.
21 However, the document doesn’t detail who should undertake this monitoring, how it
22 should occur, or define an ‘adequate diet’, leaving nutritional care to occur in an ad-
23 hoc basis. Similarly, while the Australian and New Zealand Society for Geriatric
24 Medicine’s position statement on Under Nutrition and the Older Person outlines that

1 under nutrition is common, costly, and that nutritional supplementation can reduce
2 unfavourable outcome ⁵⁰, their earlier guidelines on Orthogeriatric Care does not
3 mention dietetics as a key discipline in the treatment team ⁵¹. The Australasian
4 Faculty of Rehabilitation Medicine's Standards for Adult Rehabilitation Medicine
5 Services in Public and Private Hospitals ⁵² gives similarly mixed messages. The
6 standards state that the "majority of patients in a Rehabilitation Medicine Service will
7 require input from dietitians", but provides no guidelines on what sort of patients to
8 refer, and does not include a dietitian in their recommendations for the number of staff
9 to patient ratios ⁵². So while nutrition has been included in the recommendations for
10 care of these patients recently, the recommendations have been sparse in practical
11 details which could be used to shape future nutrition care.

12
13 It is important to acknowledge a range of limitations that may impact on the findings
14 of this study and the potential application. Firstly, the survey was not designed to
15 allow a comparison to be made across settings such as acute care and rehabilitation. It
16 is possible that services may differ although there is little evidence for this in the
17 literature or from previous work of the authors. In addition, it was not possible to
18 calculate the service provided per admission as this information was not recorded.
19 Secondly, it is clear that the survey responses to questions relating to the benefit of
20 nutrition support in this patient group when applied to a nutrition workforce are
21 expected. Selection bias may also arise in the sampling for this survey with those
22 Dietitians more interested or motivated more likely to respond. In addition, while
23 responses appear to follow the membership of DAA, it is important to note the survey
24 was distributed using DAA email services to member dietitians. There is currently no

1 data on whether membership of DAA differs among dietitians working in the various
2 settings or within rural or metropolitan areas.

3

4 In conclusion and consistent with workforce distribution (personal communication via
5 email, DAA National office, 8th March 2011) responses to this survey indicated
6 dietetic services to this group are mainly concentrated around public metropolitan
7 centres. Which raises the questions – what is follow up in the community like for
8 these patients? Who is supporting their nutritional status after discharge? Use of
9 interventions supported by the evidence base was widespread, but some respondents
10 indicated using interventions unsupported by the literature. Use of non-validated
11 screening tools appears widespread. Dietitians would be well supported by current
12 malnutrition guidelines to advocate for the use of evidence based tools chosen for the
13 appropriate population. Dietetic assistants could be further utilized to assist dietitians
14 to provide effective care to these clients. More detailed evidence based guidelines on
15 appropriate care for femoral neck fracture patients would assist not only dietitians but
16 also all those involved in the care of these patients to improve the nutritional care of
17 these clients, given the effect of malnutrition on all facets of these patient’s recovery.
18 Further research might focus on other services which could be taking on the role of
19 monitoring nutritional status in the community for these patients, and strategies to
20 provide cost effective care to these patients, such as the utilization of dietetic
21 assistants.

22

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13

Table 1 Source of majority of referrals for patients with a femoral neck fracture indicated by respondents

<i>Referral Source</i>	<i>Number of responses (% of respondents)[†]</i>
Nursing staff	70
Automatic referral systems	42
Other allied health	26
Physiotherapists	12
Surgeons	11
Other	34

[†]= total number of respondents =137. Respondents could choose more than one option

Table 2 Variety of Interventions Routinely Utilized by Dietitians

<i>Intervention</i>	<i>n</i> [†] (%)
Nourishing snacks	127 (96.2)
Oral supplements	124 (93.9)
Nourishing meals	121 (91.7)
Recommending food providers for discharge	60 (45.5)
Providing recipes	32 (24.2)
Food texture modification	29 (22.0)
PEG/Nasogastric feeding	13 (9.9)
Weight loss	14 (10.6)
No intervention routinely	2 (1.5)
Other	3 (2.3)

[†]Number of respondents indicating they utilize the intervention routinely with patients with a femoral neck fracture. Respondents could choose more than one option.

Table 3 Opinion of respondents on the importance and effectiveness of nutrition for recovery following falls related femoral neck fracture

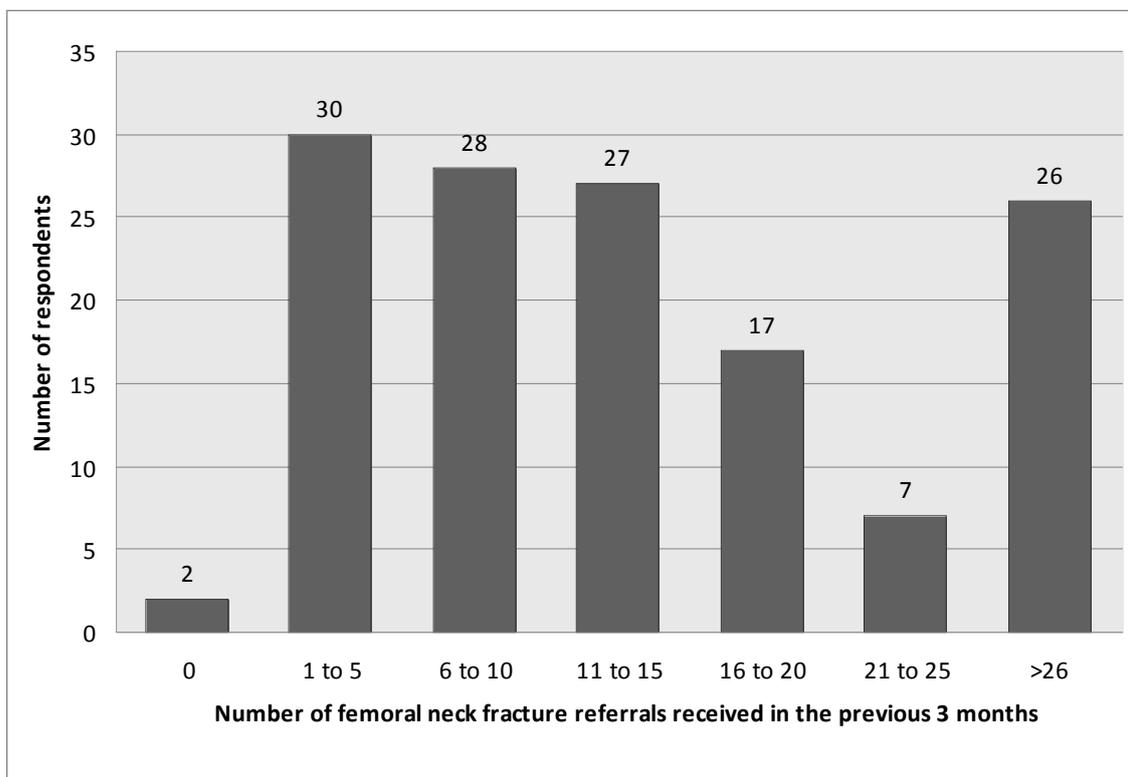
<i>Statement</i>	<i>n</i>				
	<i>Strongly Agree</i>	<i>Agree</i>	<i>Undecided</i>	<i>Disagree/Strongly Disagree</i>	<i>Did Not Respond</i>
Important [†]	55	16	0	0	96
Effective [‡]	55	50	3	0	59

[†]Important= "Nutrition is important to the recovery of clients with a falls related fracture of the femoral neck or hip"

[‡]Effective= "Dietary strategies are effective in improving the recovery of clients with a falls related fracture of the hip of femoral neck"

n=number of respondents

1



2

3 **Figure 1** Dietitians who responded to the survey estimated the number of patients
4 with a femoral neck fracture referred to them in the previous 3 months (including
5 those managed by automatic referral processes). Above figure gives the number of
6 respondents who received no referrals, between 1 and 5, 6 to 10, 11 to 15, 16 to 20, 21
7 to 25, or greater than 26 referrals for femoral neck fracture patients in the previous 3
8 months.