Central East GAIN Evaluation 2018/2019

Final Evaluation Report
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Acronyms and Abbreviations

Ax.	Assessment
BPMH	Best Possible Medication History
CCHC	Carea Community Health Centre
CF	Carefirst
CGA	Comprehensive Geriatric Assessment
CCCKL	Community Care City of Kawartha Lakes
Doc.	Documented
GAIN	Geriatric Assessment and Intervention Network
HHHS	Haliburton Highlands Health Services
Hx.	History
LHO	Lakeridge Health Oshawa
Med.	Medical
PHCHC	Port Hope Community Health Centre
POA	Power of Attorney
PRHC	Peterborough Regional Health Centre
Ref.	Referral
SHN	Scarborough Health Network
SHN-C	Scarborough Health Network Centenary
SHN-G	Scarborough Health Network General
SPLC	Senior Persons Living Connected
SDM	Substitute Decision Maker
Surg.	Surgical
TH	Trent Hills

Evaluation Plan

<table>
<tr><th colspan="4">Evaluation Planning Template</th></tr>
<tr><td>Program</td><td>GAIN</td><td>Fiscal Year</td><td>2018-19</td></tr>
<tr><td>Evaluation Type</td><td colspan="3">☐ structure ☒ process ☐ outcome</td></tr>
<tr><td>Evaluation Objective</td><td colspan="3">Describe the client and care partner-related outcomes associated with SGS programs.</td></tr>
<tr><td>Evaluation Question</td><td colspan="3">Are GAIN teams conducting complete Comprehensive Geriatric Assessments (CGA) on all new patients, across all domains of the CGA including responding to the reason for referral?</td></tr>
<tr><td>Outcomes</td><td colspan="3">All new patients to GAIN receive a CGA consistent with the provincial standard.</td></tr>
<tr><td colspan="4">Indicator(s) and Definition:</td></tr>
<tr><td colspan="2">☒ existing:</td><td colspan="2">☒ needs to be collected/created:</td></tr>
<tr><td colspan="2">▪ Number of new patients</td><td colspan="2">▪ Evidence of assessment across all 13 domains of the CGA (identified in the Framework for Interprofessional CGA):
○ Introduction (i.e. reason for referral)
○ Medical/Surgical History
○ Medication
○ Social History
○ Falls
○ Function
○ Cognition
○ Introduction
○ Medical/Surgical History
○ Medication
○ Social History
○ Falls
○ Function
○ Cognition
▪ Evidence of response to reason(s) for referral</td></tr>
<tr><td colspan="4">Data Source(s):</td></tr>
<tr><td colspan="2">☒ existing:</td><td colspan="2">☒ needs to be collected/created:</td></tr>
</table>

GAIN reports and charts	Chart review template Team survey

Method(s):

The Comprehensive Geriatric Assessment (CGA) is the standard of care for older people living with frailty. Evidence suggests that interventions arising from the CGA reduce caregiver burden, reduce ED visits/acute care admissions, clarify patient & care partner goals, improve functional status and mitigating frailty.

Teams will identify all patients who received an initial visit to GAIN between June 1, 2018 and December 31, 2018 and create a list in Excel. This list will be randomized using the random number generation function [=RAND()] and teams will identify 15% of the total number of new patients for chart review,

A team member will capture basic descriptive data (reason for referral), and look for evidence of review across all 13 domains of the CGA, and a response to the reason for referral. Evidence includes:

- a statement that there are no concerns in the domain areas; or
- analysis or a clinical finding in the domain areas

Following completion of data collection and analysis, surveys or interviews will be conducted to clarify findings, or solicit further information in relation to the evaluation question.

Data collection:
Please attach a timeline outlining start date, duration, and completion date for data collection, analysis, and reporting.

	Who will collect?	GAIN teams will identify the charts, data extraction will be completed by an independent party.	
	How often? (frequency)	One episode of data collection January 2019	
	When?	Start Date:	January 15, 2019
		Completion Date:	February, 2019

Data analysis:

	Who will analyze?	Stacey Hawkins, Brandi Flowers, Rhonda Schwartz, Kelly Kay
	How will it be analyzed? (method)	▪ Frequency counts of evidence of assessment in each domain area by team ▪ Frequency counts of evidence of assessment in each domain area Regional ▪ % of new patients adequately assessed for their reason(s) for referral Regional ▪ % of new patients adequately assessed for their reason(s)

		for referral by team. ▪ % completion of CGAs in all domains Regional ▪ % completion of CGAs in all domains by team Analytical findings and potential Quality Improvement opportunities will be shared with individual teams prior to Evaluation Report submission for feedback and/or clarification.	
	When?	Start Date:	Feb 1, 2019
		Completion Date:	March 31, 2019.
Reporting:			
	Who will submit?	Brandi Flowers	
	When?	Date:	May 20, 2019 (with Q4 report)

Chart Review Analysis

Evaluation data was collected on site by an Evaluation Assistant (EA) appointed by Seniors Care Network. Data was collection occurred at 11 GAIN sites between January 23, 2019 and April 18, 2019, and was coordinated by the GAIN Regional office.

During the site visit, data for 15% of the randomly selected new patients were collected on pre-printed audit tools (see Appendix 1). Data was collected on: (1) evidence assessment across domains of the CGA; (2) sources consulted; and (3) an “other comments” category with contextual information recorded by the EA (where appropriate). The collected, de-identified data was later transcribed into a standardized Microsoft Excel spreadsheet, stored remotely on the Seniors Care Network server located at Northumberland Hills Hospital). The server was accessed using the VMware Horizon Client software, which establishes a secure, remote connected to the hospital-based server.

In order to de-identify the data, Medical Record and/or OHIP numbers were not transcribed into the Excel spreadsheet. Both the audit tool and the Excel spreadsheet were developed by Seniors Care Network.

After data was collected at the site for all included charts, the EA randomly selected three patient records to conduct a quality assurance review (to ensure the data fidelity). Where an error in the review was identified, the entry was corrected, and a note was made. Additionally, all data entered into the Excel spreadsheet was assessed for completeness and fidelity by the Seniors Care Network staff (S. Hawkins) prior to the conclusion of the site visit. The EA and the Seniors Care Network staff member debriefed after completion of data entry and quality checks. When both parties were satisfied with the quality and fidelity of the data collected, the completed audit tools and randomized patient lists were stored/discarded, in accordance with the pre-established Patient Health Information security/privacy protocols.

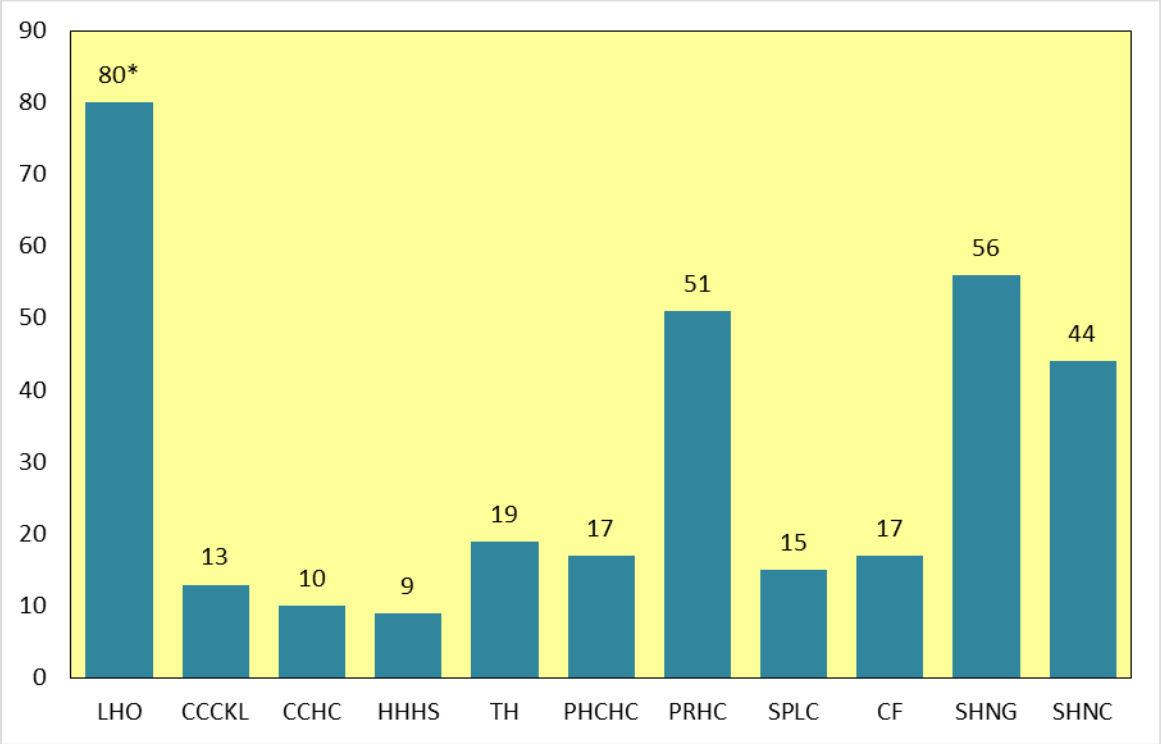
De-identified data was accessible to Seniors Care Network staff on an ongoing basis. Seniors Care Network staff cleaned and prepared the data for interim and final analyses using Microsoft Excel and IBM SPSS Professional. Data was cleaned and prepared as follows:

- Cases with missing or not applicable entries were appropriately coded
- For four GAIN sites, the age of each patient was manually calculated using the year of birth (YOB; i.e. Age at the time of initial CGA= [2000 minus YOB] plus 18). For all other sites, the patient’s age was transcribed into the audit tools directly from the medical records (i.e. the age mentioned in the Consultation Notes (or other sources) at the time of initial CGA).

Chart Review Findings

A total of 331 patient charts were reviewed across 11 GAIN sites (see Figure 1). Of the 331 charts, one chart was excluded as the patient did not give consent for a CGA. This resulted in a total sample size of 330. The highest number of charts were reviewed at Lakeridge Health Oshawa (LHO) and Scarborough Health Network (SHN) General. Carea Community Health Centre (CCHC) and Haliburton Highlands Health Services (HHHS) had the smallest sample sizes.

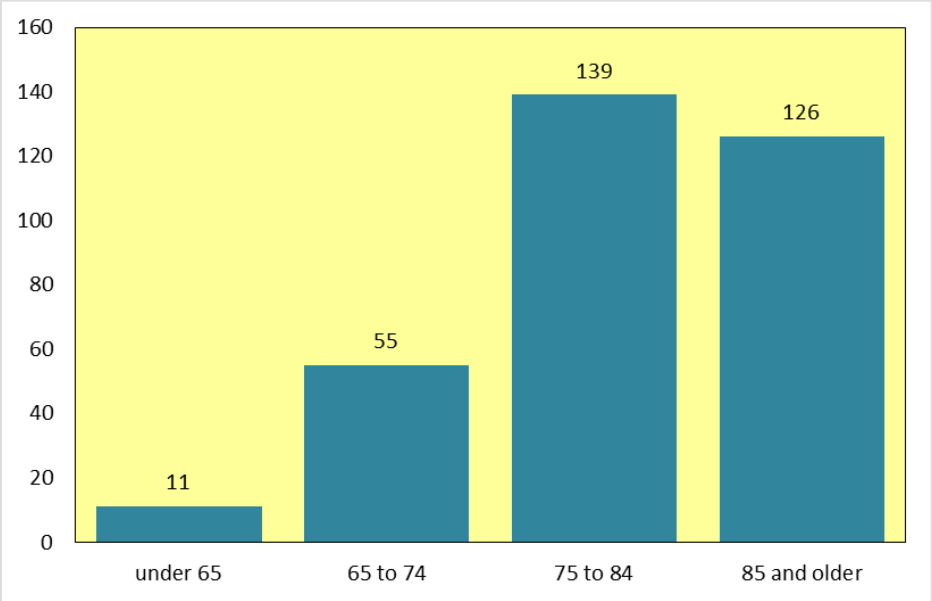
Figure 1: Number of patient charts reviewed (by site)



**15% sample size=79; 80 files were reviewed as one patient did not give consent for CGA; this chart has been excluded from the analysis*

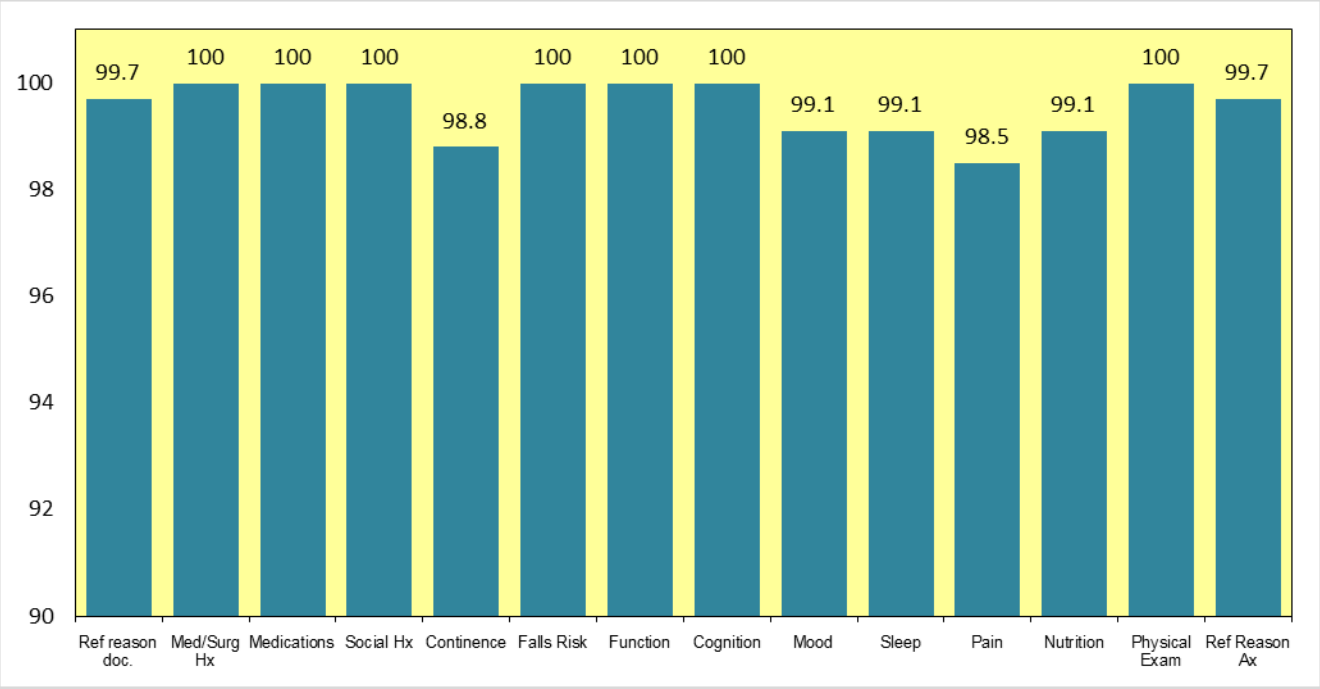
The average age of the patients in the sample was 81.2 (*SD*=8.45). The majority of the patients were 75 and older (80.1%; see Figure 2). Only 3.3% of the total patients were younger than 65, and all were referred and assessed due to concurrent cognitive frailty (typically dementia) and other comorbidities. The majority of these patients were referred to community-based GAIN teams.

Figure 2: Number of persons by age groups (Regional)



Across all GAIN sites, the chart review revealed that 95.1% of new patients received a complete CGA. A complete CGA was defined as documented evidence of assessment across the 13 domains of the CGA, and a response to the reason for referral. Figure 3 displays the percentage of charts with documented evidence of assessment for the Region (i.e. all GAIN teams). There was 100% compliance (i.e. evidence of assessment) for 7 domains. The lowest compliance was for the domains of pain (98.5%) and continence (98.8%). There was no significant difference in CGA compliance between GAIN sites (Figure 4).

Figure 3: Percent cumulative evaluation scores (Regional)



Ref=Referral; Doc=Documented; Hx=History; Ax=Assessment

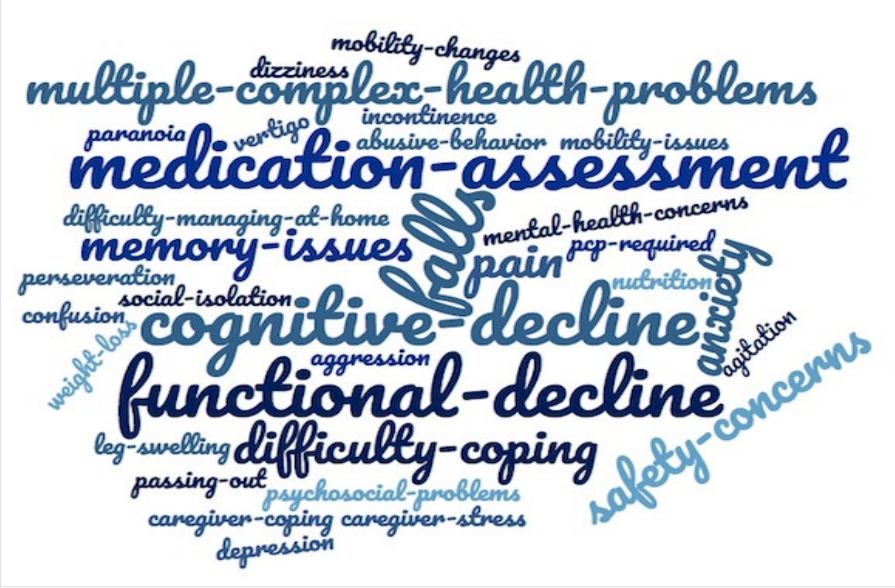
Table 4: Percent Evaluation Scores (by Site)*

	1	2	3	4	5	6	7	8	9	10	11
Ref. Reason doc.	100	100	100	100	100	100	97.7	100	100	100	100
Med/Surg. Hx.	100	100	100	100	100	100	100	100	100	100	100
Medications	100	100	100	100	100	100	100	100	100	100	100
Social Hx.	100	100	100	100	100	100	100	100	100	100	100
Continence	100	100	100	100	100	92.9	100	100	100	100	100
Falls Risk	100	100	100	100	100	100	100	100	100	100	100
Function	100	100	100	100	100	100	100	100	100	100	100
Cognition	100	100	100	100	100	100	100	100	100	100	100
Mood	100	100	100	100	100	96.4	97.7	100	100	100	100
Sleep	100	100	100	100	100	98.2	95.5	100	100	100	100
Pain	100	100	100	88.9	100	96.4	95.5	100	100	100	100
Nutrition	100	97.5	100	100	100	98.2	100	100	100	100	100
Physical Exam	100	100	100	100	100	100	100	100	100	100	100
Ref. Reason Ax.	100	100	100	100	100	100	97.7	100	100	100	100

Other Findings

Thematic analysis of reasons for referral was done by creating word clouds for each site (See Figure 5 for example). Subsequent analysis revealed that cognitive decline, falls, functional decline, and medication assessment, were the most common reasons for referral across the Region. This information could be potentially helpful in further understanding the health-needs of frail seniors and could aid in planning outcomes-focused evaluation/or and quality improvement activities for various sub-sets of GAIN clients.

Figure 5: Referral Reason Word Cloud (e.g. PHCHC)*

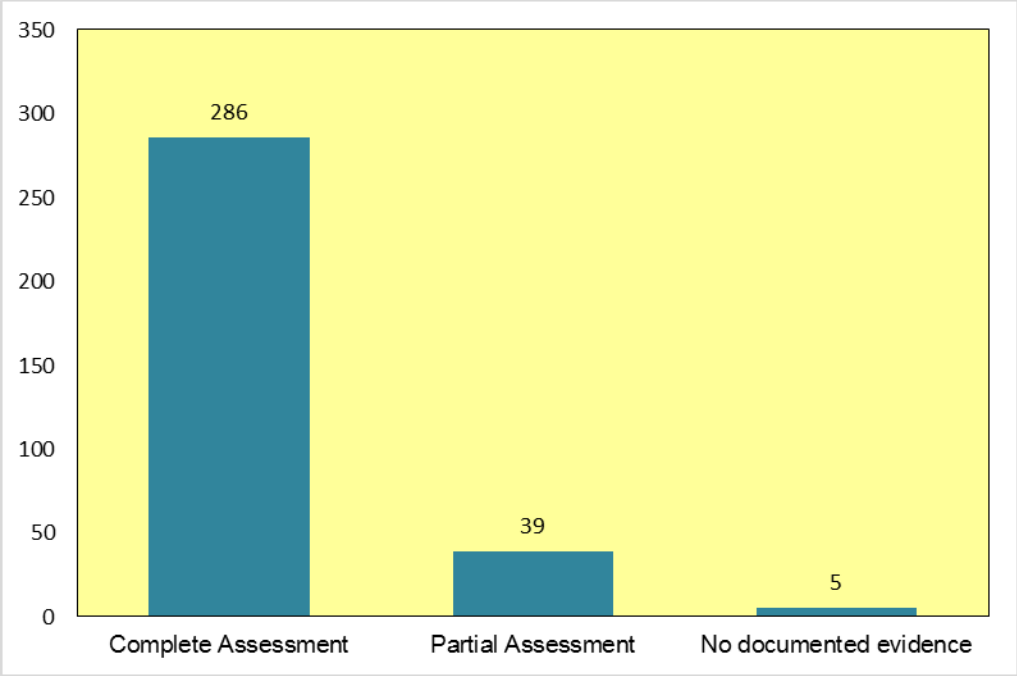


**Size of text corresponds to frequency of referral reason*

Presence or absence of bladder and/or bowel Incontinence was not explicitly documented in 11.8% of the reviewed files. However, documented evidence of other continence-related signs/symptoms such as diarrhea, nocturia, hemorrhoids, and others, were found in the notes. In majority of these cases only consultation notes were reviewed and CGA worksheets were not available for secondary reference.

For this domain, a continence partial assessment variable was created, data was coded, and a secondary analysis was performed (See Figure 6). Partial assessment was not used in the evaluation of overall compliance. Evidence of a partial assessment was coded as complete assessment in the overall compliance calculation, and therefore did not negatively affect Regional or site-specific compliance scores.

Figure 6: Number of Charts with Continence Assessments (Regional)



In select files that mentioned ‘caregiver stress’ among the reasons for referral or patient and family concerns, documented evidence of Zarit Burden Interview scores could not be found in the consultation notes. However, the notes did contain subjective assessment of caregiver stress, and the care plan(s) also included recommendations on managing/relieving it.

Survey Findings

A primary limitation of chart review methods is that the findings derived from this type of evaluation are dependent on the quality of documentation practices. In the current GAIN chart review, evaluation of the completeness of documentation related to the CGA was not necessarily an evaluation of the quality of assessment. Therefore, in order to confirm some of the preliminary evaluation findings and to identify potential quality improvement opportunities, all GAIN teams were invited to participate in a brief, follow-up evaluation survey (see Appendix 2). This included a combination of open-ended and multiple-choice questions. The survey was circulated to the teams by the GAIN Regional Office. The teams were requested to submit their responses within 10 calendar days, after which the survey was closed.

A total of 23 responses (22 individual and 1 group submission) were received. The overall response rate for the survey was 23.7%. Counts of responses to multiple-choice questions were completed, and descriptive statistics are presented in the proceeding figures. Seniors Care Network conducted a thematic analysis of open-ended survey responses. Findings from analysis of the survey are summarized under four thematic categories.

Assessment of Bladder and Bowel Incontinence

All the respondents confirmed that new GAIN patients are routinely assessed for bowel and bladder incontinence. While majority of the respondents mentioned that incontinence-related findings are consistently documented in the consultation notes, one respondent stated that negative findings (i.e. no concerns identified) might not always be noted in the consultation notes. Similarly, another respondent mentioned that incontinence-related findings are likely recorded on the CGA worksheet, but not necessarily transcribed in the interprofessional progress notes.

Time Available for Conducting the Initial CGA

The majority (52.1%) of the respondents mentioned that the time available for conducting the initial CGA is usually sufficient. Select respondents identified some situations where the time allotted for the initial CGA might be insufficient. These included situations where:

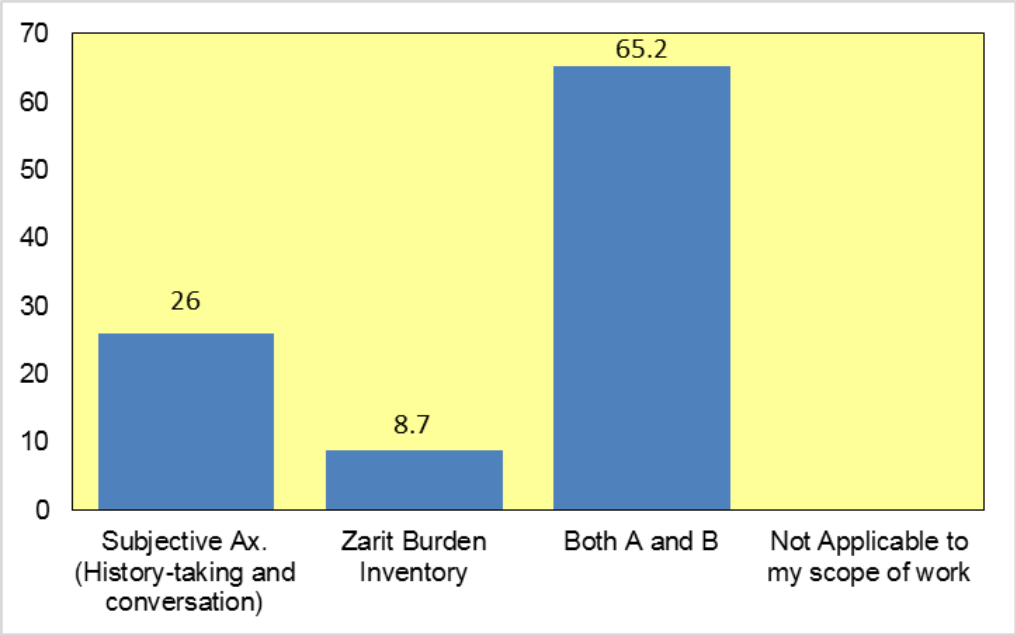
1) assessment involved a particularly complex patient
2) cognitive screening and/or full dementia assessment was necessary
3) the clinicians were unable to obtain collateral information/history from caregivers, family, or friends
4) patient-related factors (e.g. language barrier, hearing difficulty, fatigue, and etc.) prevented full assessment

One respondent also mentioned that the space and environment available for conducting the CGA is not always adequate.

Assessment of Caregiver Stress/Burden

The majority (65.2%) of the respondents confirmed that caregiver assessment (including caregiver stress and/or burden) is routinely assessed using both the Zarit Burden Interview and a combination of history-taking and conversation (see Figure 7). Upon reviewing the comments from the respondents, it was inferred that some staff require additional educational resources (e.g. research articles, training tools, and etc.) to aid the interpretation of Zarit Burden Interview scores/classifications, and to understand the benefits of using an objective tool for such assessments. One respondent mentioned that Zarit Burden Interview might not be routinely conducted due to clinical judgement, including perceived (in)appropriateness of using this tool during an assessment.

Figure 7: Assessment of Caregiver Burden/Stress (% Survey Responses)



Assessment and Documentation of Patient Weight

Respondents reported multiple reasons for not measuring a patient's weight during the initial CGA. The most common reason provided, was an insufficient supply of bariatric/portable scales on-site or at a patient's home. The second most common reason was patient-related factors, such as frailty, inability to bear weight, mobility issues, and refusal by the patient.
Respondents also stated that a patient's weight might not be measured if the clinician does not perceive weight assessment to be a priority during the assessment (e.g. the patient has a normal diet and/or no nutrition-related concerns are evident).

Documentation of CGA Findings in the Consultation Notes

Survey respondents were asked to suggest potential strategies or approaches to ensure that consultation notes fully communicated the findings from the CGA. The majority suggested using a standardized format/template to ensure that all CGA findings are consistently documented in the consultation notes. Other suggestions included:

1) collaborative documentation (i.e. all members of the team document their assessment findings in the consultation notes)
2) review of standards/expectations with the Most Responsible Provider (MRP) to ensure they understand that no other means are available to communicate the CGA findings
3) NP/Geriatrician to receive the interprofessional notes prior to documentation/dictation of the note
4) reminders
5) documentation of the CGA findings directly into the consultation notes
6) periodic audits
7) attaching supporting documents to the consultation notes (i.e. when a consultation note is being sent to a referring clinician)

Conclusions and Opportunities for Quality Improvement

The chart review revealed that 95.1% of GAIN patients received a complete CGA. There was 100% compliance for 7 CGA domains, with the lowest compliance for pain assessment (98.5%) and continence assessment (98.8%). There was no significant difference in CGA compliance between GAIN sites.

Presence or absence of bladder and/or bowel incontinence was not explicitly documented in 11.8% of the reviewed files. Based on responses to the follow-up survey, it was inferred that although all new patients are routinely assessed for bowel and bladder incontinence, the findings might not always be documented in the consultation notes. Therefore, it is recommended that there should be increased emphasis on the recording of incontinence-related findings. The findings also suggest that elements of continence in the *Competency Framework for Inter-professional Comprehensive Geriatric Assessment* (CGA)[1] might be further defined.

For select patients, it was observed that some components of the CGA that were documented in the CGA worksheet or interprofessional notes were not transcribed in the consultation notes. The majority of the survey respondents recommended the use of a standardized template/format as a potential solution to this issue. Based on these findings, development of regional documentation standards could promote consistent documentation of all CGA findings in the consultation notes, across all GAIN teams.

In select files that mentioned ‘caregiver stress’ among the reasons for referral, documented evidence of Zarit Burden Interview scores could not be found in the consultation notes. A significant proportion of survey responses (26%) indicated that subjective assessment of caregiver stress/burden (usually through history taking and conversation) was their only means of assessment of this domain. Based on the survey responses, it was also deduced that some staff require additional educational resources to aid the interpretation of Zarit Burden Interview scores/classifications, and to understand the benefits of using an objective tool for such assessments.

Lastly, the findings from this evaluation suggest that weight is not always assessed or documented during the course of the CGA. Survey respondents offered several reasons why weight assessment is not done during the course of an initial CGA, including clinicians not viewing it as an assessment priority for some patients, and a variety of other patient-related factors. However, several survey respondents also suggested that some teams had an insufficient supply or a lack of specific types of portable scales that would enable weight assessment. This suggests that there should be an inventory taken among teams of their current availability of portable/bariatric scales. This would aid in subsequent purchasing of scales for those respective teams where there is an apparent need.

[1] Kay, Hawkins, Day, Briscoe, Daly & Wong (2017)

References

Kay, K., Hawkins, S.A., Day, A., Briscoe, M., Daly, D., & Wong, K. (2017). A competency-framework for interprofessional comprehensive geriatric assessment. Cobourg, ON: Regional Geriatric Programs of Ontario. Retrieved from: https://www.rgps.on.ca/resources/a-competency-framework-for-interprofessional-comprehensive-geriatric-assessment/

APPENDIX 1: Audit Tool

SITE NAME/LOCATION:
DATE:

INSTRUCTIONS: *Check for 'documented' evidence of assessment for each of the 13 domains of CGA in the Patient's Medical Record during the 'initial' visit.* ***Evidence includes, a statement that no concern was found, or analysis or clinical finding in a domain area.*** *Assessment for each element of the domain may not be applicable for each patient. Evidence could be found in the GAIN CGA Worksheet* ***A****, Consultation report* ***B, &/or*** *Senior Care Planning Summary* ***C****,* ***mention all the reviewed sources****. Look for correlation between the reason of referral/areas of concern and the assessments conducted.*

S. No:	**Patient ID:** **DOB (use 15th of month for every pt.)**			**Serial no. on the list:** **Date of visit:**	
1	**Patient's reason for referral/chief concern** *documented reason/concern automatically satisfies the domain of introduction*				
#	**DOMAIN**	**Yes**	**No**	**Mentioned in (A, B &/C)**	**Comments/Queries**
2	**Patient assessed for past Medical/Surgical History;** *assessment may include one or more of the following: Past Medical History, Chronic Disease Management, Preventative Health Practices, and family history of a particular illness etc.*				
3	**Patient assessed for their current/past medications;** *assessment may include one or more of the following: Allergies, BPMH, Med adherence, and Packaging & administration of current medications.*				
4	**Patient assessed for the presence of Bladder &/Bowel incontinence**				
5	**Patient's relevant Social History documented;** *assessment may include one or more of the following:*				

	gender/sexuality, socio-demographic details, POA/SDM, Advance care directives, Family/social support systems, Occupational, financial Hx, hobbies/interests, Alcohol/smoking/recreational drugs, and Hx of Abuse/neglect.				
6	**Patient assessed for the history and risks of fall/near fall**				
7	**Patient assessed for Function;** *assessment may include one or more of the following: Scoring for Activities of Daily Life, Scoring for Instrumental Activities of Daily Life, Safety of the living environment, use of equipment or assistive devices, assessment regarding mobility (gait tests), and transportation. Some of these assessments may be recorded on separate standardized forms.*				
8	**Patient assessed for Cognition;** *assessment may include one or more of the following: measurement of Subjective Cognitive decline (likely a questionnaire), measurement of mild cognitive impairment, Dementia Staging and type (when applicable), measurement of responsive behaviors, risk assessment for injury/harm. Some of these assessments may be recorded on separate standardized forms.*				
9	**Patient assessed for the presence of Mood disorders, Mental health concerns (including addiction);** *Additionally, assessment may include one or more of the following: presence of anxiety, suicide ideation/risk, recent loss/grief, stress and apathy.*				
10	**Patient assessed for concerns regarding Sleep or Sleep related disorders like Apnea.**				
11	**Patient assessed for existence and management for Acute/Chronic pain.**				
12	**Patient's Nutritional Status Assessed;** *assessment may include one or more of the following: unintentional weight*				

	loss<6 months, reduced food intake, maintenance of hydrations, swallowing related issues.				
13	**Patient underwent a Physical Examination;** *assessment may include one or more of the following: documentation of Vital Signs, Review of Systems, and Laboratory/Diagnostic tests.*				
14	**Is there a correlation between the reason for referral/patient's chief complaint or concern and the assessments conducted? (Yes/No)**				

Add any additional comments below (also mentioned if Collaborative Comprehensive Geriatric Assessment form used):

APPENDIX 2: Survey

1. Are new GAIN patients routinely assessed for Bowel & Bladder ***Incontinence*** during their initial CGA, and are these findings consistently documented in the Consultation Notes?

2. How is Caregiver Stress/Burden routinely assessed during the initial CGA?

   A) Subjective assessment (history-taking and conversation)

   B) Zarit Burden Interview (score)

   C) Both A and B

   D) Not applicable to my scope of work

   Additional comments (optional):

3. Is the time available for the initial CGA usually sufficient to cover all 13 CGA domains?

4. In some of the reviewed files, documented evidence of the measurement of patient's weight could not be found in both the CGA-worksheets and the Consultation Notes. Under what circumstances ***might*** a patient's weight not be measured during their initial CGA?

5. For select cases some pertinent assessment findings that were documented in the CGA-worksheet or Inter-Professional team notes were not transcribed in the Consultation Notes.

   Considering that Consultation Notes are the primary means for communicating the CGA results to the referring clinicians, what steps could be potentially taken to ensure that all CGA findings are consistently noted in them?