

Acute Coronary Syndromes (ACS) Provincial Orders Dissemination

Final Evaluation Report

July 2014

This report was produced by the Clinical Analytics Team, Data Integration, Measurement and Reporting (DIMR), Alberta Health Services. For further information, please contact Flora Stephenson at 403-944-8926 or flora.stephenson@albertahealthservices.ca.

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Executive Summary

Background:

Under the Cardiovascular Health & Stroke Strategic Clinical Network, the Acute Coronary Syndromes (ACS) Working Group was established to recommend provincial standards of care for the management of Acute Coronary Syndromes. ACS includes a number of clinical conditions, from unstable angina (UA) to non-ST elevation myocardial infarction (NSTEMI) and ST elevation myocardial infarction (STEMI).

Following the development and implementation of the provincial Risk Stratification and Management Guidelines (RSMG) for management of patients with NSTEMI and UA, the ACS Working Group developed a provincial ACS NSTEMI / UA Admission Orders based on current evidence, which is aligned with the RSMG.

This phase of the project involves disseminating and evaluating the reception and adoption of the ACS orders and RSMG by June 30, 2014. It is led by the ACS Provincial Orders Dissemination Team (POD Team), reporting to the ACS Working Group. Some of the key milestones included:

Milestone	Date
RSMG forms available to order	2012May
Provincial Memorandum to AHS Executive leadership	2013Oct07
SCM Catheterization Booking Request form updated to include RSMG fields (Urban Calgary)	2013Oct10
ACS NSTEMI / UA Admission Orders available to order	2013Oct16
Provincial Webinar posted online	2013Nov01
Provincial Memorandum to physicians and staff re: Information Sessions	2013Nov04
Provincial Telehealth Session #1	2013Nov26
SCM ACS Orders updated (Urban Calgary)	2013Dec13
Provincial Telehealth Session #2	2014Jan23
Covenant Health versions of the RSMG and ACS Orders available to order	2014Feb01
AHS Insite Article Published	Q3 2014/15

This report is an interim evaluation, looking at 8 key performance indicators (KPIs) such as provider satisfaction, anticipated adoption, and attendance at Telehealth sessions to guide the remainder of the project dissemination activities.

Methods:

An evaluation strategy was developed to examine the ACS provincial orders dissemination process. Qualitative and quantitative data was collected to provide information to inform the evaluation. Data sources include stakeholder survey, Sunrise Clinical Manager (SCM) at the Calgary urban sites, and the Data Group and internal AHS Print Centres for form purchase information at the other sites.

The following indicators were used for the evaluation:

Quality Dimension	Indicator
Acceptability	<ul style="list-style-type: none"> • Provider satisfaction with communication/education sessions
Accessibility	<ul style="list-style-type: none"> • Site attendance in communication/education sessions
Appropriateness	<ul style="list-style-type: none"> • Anticipated adoption or adaptation for the site <ul style="list-style-type: none"> ○ ACS Orders ○ RSMG • Actual adoption of ACS orders • Actual adoption of ACS RSMG • Qualitative feedback regarding actual use
Effectiveness	N/A due to project timelines
Efficiency and Sustainability	N/A due to project timelines
Safety and Risk	N/A due to project timelines

Limitations:

- The order set dissemination period was short (6 months) and not synchronous across the province, making it difficult to pinpoint specific actions that had the highest degree of impact.
- Participation in the Telehealth sessions was determined by site pre-registration for the sessions and roll call taken at the sessions.
- Survey results are limited to those who chose to participate in the survey (online or paper).
- Data regarding the number of webinar viewers and their location is unattainable and may show lower results in terms of communication coverage.
- The number of Covenant Forms ordered is only available from 1/3 print centres in Alberta, so usage numbers at these sites will be lower than actuality.
- Direct comparisons cannot be made between different areas for adoption of ACS orders and RSMG because data collection methods varied across sites.
- Feedback regarding actual use of the ACS orders and RSMG were obtained from the sites that used them prior to the Telehealth session. Therefore, the feedback could be skewed as the early adopters are more likely to report positive experience.

Results:

- Providers were satisfied with the communication and education sessions for the ACS orders and RSMG.
- Approximately 70% of sites that provide ACS care across the province attended one or both education sessions.
- All respondents to the survey planned to adopt or adapt the ACS orders and RSMG.
- 6 of 8 forms were made obsolete as the ACS orders and RSMG are being used.
- There was an increase in ACS orders usage immediately after the dissemination work begun.
- There was an increase in GRACE score and RSMG completion rate in the South Zone referrals to Calgary's Intervention Cardiology Service since the beginning of the project.
- The majority of participants who used the RSMG reported that it was appropriate for care.

Conclusions and Recommendations

- The dissemination methods were appropriate as approximately 70% of sites that provide ACS care across the province attended at least one education session. The majority of survey respondents were satisfied with the methods used.
- The initial uptake of ACS orders and RSMG shows a steady increase over time. The usage should continue to be monitored to identify additional gaps and to provide targeted communication as needed.

Evaluation Indicators

Acceptability

Provider satisfaction with communication/education sessions

✓ Target: 80% satisfaction

Telehealth Session #1 (n = 23)	Telehealth Session #2 (n = 14)	Online Webinar (n = 3)	Total (n = 40)
84.4%	90%	90%	87%

Report: Overall satisfaction was 87%, meeting the target. Results were consistent across the three education sessions based on feedback received from survey respondents.

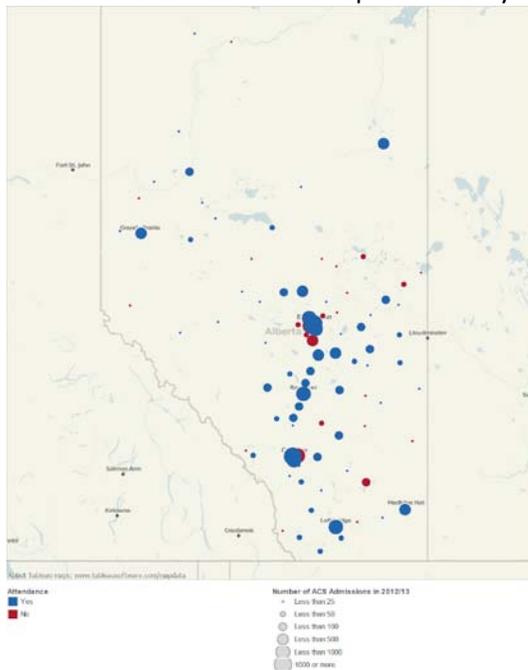
Accessibility

Site attendance in communication/education sessions

✓ Target: Not specified / 98 Sites

Telehealth Session #1	Telehealth Session #2	Total
55/98 sites = 56%	40/98 sites = 41%	68/98 sites = 70%

Telehealth Site Attendance represented by # of annual ACS NSTEMI /UA Admissions:



Report: Overall, site attendance at the Telehealth Sessions covers a large majority of the sites who admit ACS NSTEMI / UA patients. The POD Team may want to target additional communication to sites who admit higher volumes of patients that were unable to attend the Telehealth sessions.

Appropriateness

Anticipated adoption of the ACS Orders and RSMG

✓ Target: 80% plan to adopt/adapt

	Adopt (As-is)	Adapt (Modify)	Not Use	Not Applicable	Total
ACS Orders	45% (18/40)	35% (14/40)	0% (0/40)	20% (8/40)	100% will adopt or adapt

	Currently in Use	Will Likely be Used	Will NOT be used	Not Applicable	Total
RSMG	50% (20/40)	38% (15/40)	0% (0/40)	12% (5/40)	100% are / will be using

Report: Of the survey participants, 100% will use the ACS Orders through outright adoption or adaptation of the clinical content to their local format. Similarly, the RSMG form is already in use or will be used by 100% of the sites that participated in the survey.

Appropriateness

Actual adoption of the ACS Orders

Target: N/A, See Chart for Baseline

Key Performance Indicator	Baseline	Outcomes (2013/14 Fiscal Year)	
		Q3 (2013/14)	Q4 (2013/14)
Urban Calgary: SCM orders placed (ACS or CCU)	<ul style="list-style-type: none"> • ACS: 7% • CCU: 43% • Total: 50% 	<ul style="list-style-type: none"> • ACS: 11% • CCU: 49% • Total: 60% 	<ul style="list-style-type: none"> • ACS: 8% • CCU: 43% • Total: 51%
Other Zones & Calgary Rural: <ul style="list-style-type: none"> • Form purchases • # of orders revised or obsolete 	<ul style="list-style-type: none"> • N/A • 8 forms 	<ul style="list-style-type: none"> • 3500 • 1/8 (12.5%) 	<ul style="list-style-type: none"> • 4875 • 6/8 (75%)

Report: Overall, the use of the updated orders (ACS or CCU) in Urban Calgary is increasing, although still low. Targeted communication to Residents and Admitting physicians will continue to be an important task to improve adoption at these hospitals.

The form purchases are a cursory indication of overall adoption, and obtaining additional data to review trends over a longer period of time could possibly provide more meaningful interpretation of this information. Provincial forms are being ordered across the province in all zones.

The number of orders revised or replaced by the Provincial ACS NSTEMI / UA Admission Orders is positive. 6/8 forms are planned to be replaced outright as opposed to revised. The other two remaining forms are used in the Edmonton Zone, which were recently updated and reflect the provincial guidelines.

** NOTE: of the 8 forms that appeared to overlap with this project, one was not found by Forms Management for the South West area (Lethbridge and surrounding hospitals). Please talk with Diane Shanks for a copy of these orders and their status – it is highly likely that this region will adapt their existing orders.

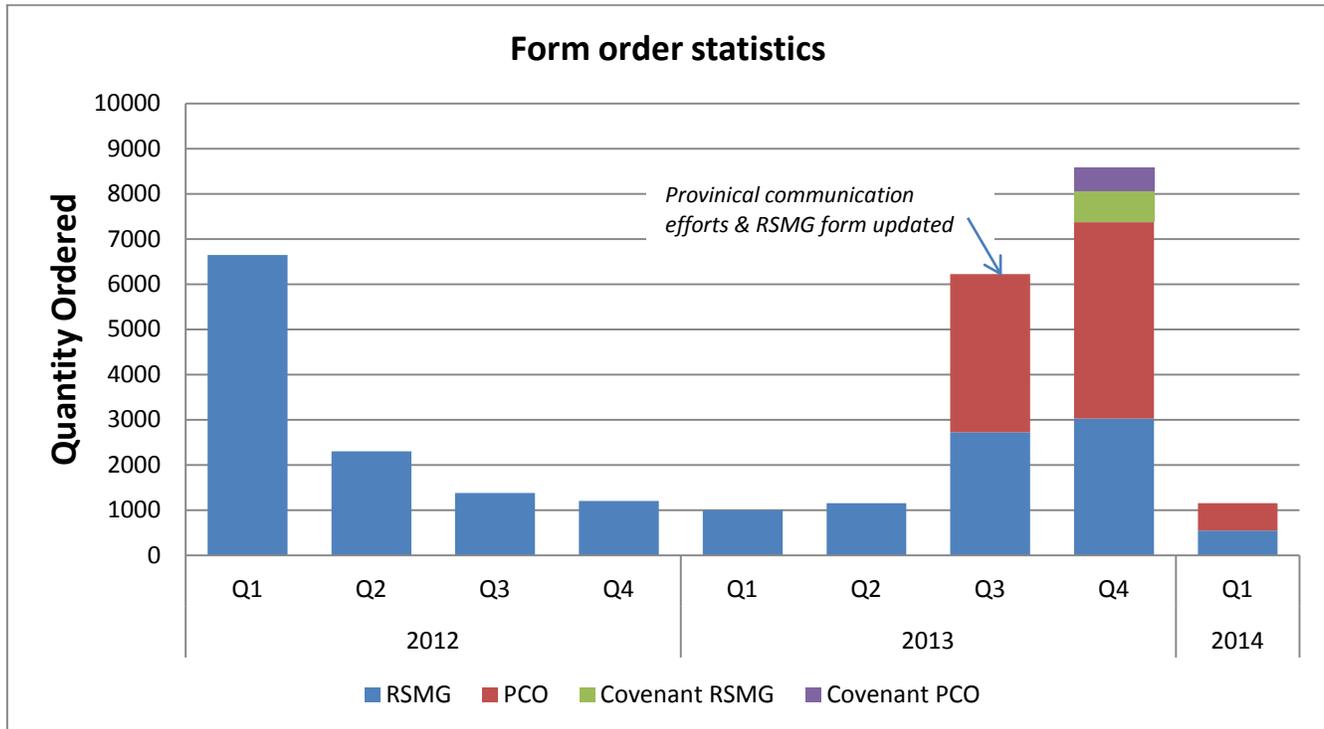
Appropriateness

Actual adoption of the RSMG

Target: N/A

Key Performance Indicator	Outcomes (2013/14 Fiscal Year)				
	Baseline	Q1	Q2	Q3	Q4
Urban Calgary: SCM orders placed (via Catheterization Booking Form)	N/A	N/A	N/A	<ul style="list-style-type: none"> GRACE = 26% Risk Strat. = 28% 	<ul style="list-style-type: none"> GRACE ≈ 23%* Risk Strat. ≈ 15%*
Other Zones & Calgary Rural: Form purchases (see graph)	0	1000	1250	2725	3025
RSMG Stats from North Sector: Forms completed by RAPPID North	N/A	N/A	N/A	<ul style="list-style-type: none"> GRACE completion rate = 83% Risk Strat. completion rate = 32% 	<ul style="list-style-type: none"> N/A due to revamps to Cardiology algorithm GRACE and Risk Strat. are in the algorithm
RSMG Stats from South Sector: Referrals to Interventional Cardiology Service (diagnosis of ACS or NSTEMI only)	<ul style="list-style-type: none"> Total referrals = 453 GRACE = 8.3% Risk Strat. = 5.3% 	<ul style="list-style-type: none"> Total referrals = 666 GRACE = 19.7% Risk Strat. = 17.6% 	<ul style="list-style-type: none"> Total referrals = 438 GRACE = 24.4% Risk Strat. = 21.7% 	<ul style="list-style-type: none"> Total referrals = 821 GRACE = 30.3% Risk Strat. = 22.3% 	<ul style="list-style-type: none"> Total referrals = 624 GRACE = 36.5% Risk Strat. = 34.1%

*Note: Health Records diagnosis verification still required for these values. This is only an approximation.



Report: Use of the newly introduced RSMG and GRACE Risk fields on the Catheterization Booking Form in SCM is low. Targeted communication to Residents and Admitting physicians will continue to be an important task to improve adoption at these hospitals.

RSMG Form purchases appear to be steady after its introduction in May 2012. There was an increase in purchases in Q3 2013/14 which can likely be attributed to provincial communication efforts and a new version of the RSMG being released. Throughout every quarter since its introduction, the RSMG form is being ordered across the province in all zones.

Appropriateness

Qualitative feedback regarding actual use

Telehealth Session #1 (n = 20)	Telehealth Session #2 (n = 12)	Online Webinar (n = 3)	Total (n = 35)
75% use RSMG and 93% agree it is appropriate for patient care	41% use RSMG and 100% agree it is appropriate for patient care	0% use RSMG	57% use RSMG and 95% agree it is appropriate for patient care

Report: Positive feedback was obtained from survey participants who use the RSMG Form; 95% agreed that it is appropriate for patient care.

Appendix 1: Satisfaction Survey

Your feedback is important to ensure the Cardiovascular Health & Stroke Strategic Clinical Network is meeting your learning and communication needs. We would appreciate if you could take a few minutes to share your opinions with us so we can improve our approach.

Hospital / Site: _____

Please circle your response to each statement below:

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
1. The session was informative and relevant to my work.	5	4	3	2	1	0
2. The session fostered my learning and participation.	5	4	3	2	1	0
ACS Provincial Orders						
3. The <i>clinical content</i> of the ACS Orders is appropriate for patient care.	5	4	3	2	1	0
4. The <i>format</i> of the ACS Orders is appropriate for my work flow.	5	4	3	2	1	0
5. On my team, the ACS Orders will be used: <input type="checkbox"/> As-is (no modification) <input type="checkbox"/> To update local orders <input type="checkbox"/> Will NOT be used <input type="checkbox"/> Not applicable						
ACS Risk Management Stratification Guidelines (RSMG)						
6. The clinical content of the RSMG is appropriate for patient care.	5	4	3	2	1	0
7. On my team, the RSMG are: <input type="checkbox"/> Currently in use <input type="checkbox"/> Will likely be used <input type="checkbox"/> Will NOT be used <input type="checkbox"/> Not applicable						

COMMENTS:

8. Please describe the most important thing you learned in this session and how you will apply this:

9. Other general comments:

Please contact my site for follow-up / feedback:

Contact Person & Information: _____

Thank you for taking the time to provide your feedback!

Appendix 2:
ACS Admissions in 2012/13

ZONE_DESC	AHW_INSTITUTION_NAME	All ACS Admission	Unstable Angina	NSTEMI	STEMI
South	Bassano Health Centre	14	7	7	
	Big Country Hospital	8		6	2
	Bow Island Health Centre	19		16	
	Brooks Health Centre	58	27	31	
	Cardston Health Centre	31		13	13
	Chinook Regional Hospital	510	46	360	93
	Crowsnest Pass Health Centre	20	2	15	
	Medicine Hat Regional Hospital	364	101	263	20
	Fincher Creek Health Centre	41	3	30	2
	Raymond Health Centre	37	10	19	3
	Taber Health Centre	16	3	10	
	Canmore General Hospital	30	16	13	
	Carewest Dr. Vernon Fanning Centre	3		3	
	Clareholm General Hospital	44	2	41	1
Calgary	Didsbury District Health Services	12	3	8	
	Foothills Medical Centre	2,921	442	1,179	1,300
	High River General Hospital	45	4	37	3
	Mineral Springs Hospital	14	3	7	
	Oilfields General Hospital	14	7	6	4
	Peter Lougheed Centre	650	164	432	63
	Rockyview General Hospital	741	206	485	47
	South Health Campus	6		3	3
	Strathmore District Health Services	79	8	68	3
	Vulcan Community Health Centre	23	13	10	
	Coronation Hospital and Care Centre	20	3	10	
	Daysland Health Centre	25	5	20	
	Drayton Valley Hospital and Care Centre	15	11	11	4
	Drumheller Health Centre	63	27	29	6
Hanna Health Centre	17	1	15	1	
Central	Innisfail Health Centre	93	4	74	4
	Killam Health Care Centre	3		1	
	Lacombe Hospital and Care Centre	92	17	72	
	Lamont Health Care Centre	2	2		
	Olds Hospital and Care Centre	87	5	78	3
	Our Lady of the Rosary Hospital	21	6	3	
	Ponoka Hospital and Care Centre	58		53	4
	Provost Health Centre	13		12	
	Red Deer Regional Hospital Centre	744	104	588	44
	Rimbey Hospital and Care Centre	25	12	13	
	Rocky Mountain House Health Centre	70	12	41	17
	St. Joseph's General Hospital	65	5	60	
	St. Mary's Hospital	157	38	104	
	Stettler Hospital and Care Centre	61	10	45	3
	Sundre Hospital and Care Centre	45	12	30	3
	Three Hills Health Centre	39	8	30	
	Tofield Health Centre	16	4	11	
	Two Hills Health Centre	5		5	
	Vermilion Health Centre	32	8	24	
	Viking Health Centre	54	18	26	1
Wainwright Health Centre	44		35	9	
Wetaskiwin Hospital and Care Centre	161	28	132	3	
Edmonton	Cross Cancer Institute	6			6
	Devon General Hospital	25	2	21	2
	Fort Saskatchewan Health Centre	42	5	37	
	Grev Nun's Community Hospital	597	23	411	151
	Leduc Community Hospital	127	15	94	11
	Misericordia Community Hospital	564	152	291	112
	Royal Alexandra Hospital	1,970	188	1,056	721
	Sturgeon Community Hospital	612	115	355	139
	University of Alberta Hospital	1,149	113	620	411
	WestView Health Centre	35		35	
North	Athabasca Healthcare Centre	22	1	21	
	Barrhead Healthcare Centre	61	13	39	9
	Beaverlodge Municipal Hospital	12	2	10	
	Bonnyville Healthcare Centre	27		26	
	Boyle Healthcare Centre	12	2	6	4
	Central Peace Health Complex	11	10		1
	Cold Lake Healthcare Centre	10		8	2
	Edson Healthcare Centre	18	6	10	
	Elk Point Healthcare Centre	1		1	
	Fairview Health Complex	21	15	1	4
	George McDougall - Smoky Lake Healthcare Centre	5		2	
	Grande Cache Community Health Complex	6	4	2	
	High Prairie Health Complex	8	1	6	
	Hinton Healthcare Centre	16	3	13	
	Manning Community Health Centre	10	4	4	1
	Maverthorpe Healthcare Centre	17	5	10	2
	Northern Lights Regional Health Centre	217	49	136	31
	Northwest Health Centre	2		2	
	Peace River Community Health Centre	64	39	23	
	Queen Elizabeth II Hospital	277	58	167	44
	Redwater Health Centre	8		7	1
	Sacred Heart Community Health Centre	19		16	3
	Slave Lake Healthcare Centre	38	21	15	
	St. Theresa General Hospital	22		19	2
	St. Therese - St. Paul Healthcare Centre	69	8	58	1
	Swan Hills Healthcare Centre	5			5
	Valleyview Health Centre	48	21	14	
	Wabasca/Desmarais Healthcare Centre	18	3	15	
	Westlock Healthcare Centre	115	25	65	19
	Whitecourt Healthcare Centre	15	7	5	2
	William J. Cadzow - Lac La Biche Healthcare Centre	44	13	31	

Note: STEMI and NSTEMI diagnosis are not consistently provided for patients with AMI. Occasionally a patient receive both STEMI and NSTEMI diagnoses at the same visit. Therefore, the sum of STEMI and NSTEMI cases does not necessarily equal to the total number of AMI cases.