City of Burnaby

Item	
Meeting	2014 Mar 10

COUNCIL REPORT

TO: CITY MANAGER **DATE:** 2014 February 24

FROM: FIRE CHIEF

SUBJECT: **FIRE DEPARTMENT RESPONSE TO MEDICAL EMERGENCIES**

PURPOSE: To inform Council of the results of a review conducted by Burnaby Fire Department on the impact of changes to the Resource Allocation Plan (RAP) on emergency pre-hospital care services and to present a possible course of action for Council consideration.

RECOMMENDATION:

1. **THAT** Council endorse the action plan outlined in Section 3 of this report.

2. **THAT** The Board Chair of BCEHS be invited to a meeting with Council.

3. **THAT** A copy of this report be sent to:

   a) Board Chairperson of BC Emergency Health Services (BCEHS), PO Box 9600, Stn Prov Govt, Victoria, BC V8W 9P1,

   b) President of Greater Vancouver Fire Chiefs Association c/o North Vancouver City Fire and Rescue, 165 East 13th Street, North Vancouver, BC V7L 2L3.

   c) Chairperson of Ambulance Paramedics of BC – CUPE Local 873

   d) President, Burnaby Firefighters Association, Local 323

   e) UBCM municipalities.

REPORT

1.0 BACKGROUND

In October 2013 the BC Emergency Health Services totally without any consultation with impacted agencies and the public, amended the Resource Allocation Plan (RAP) used by the BC Ambulance Service (BCAS). These amendments mandated a reduction in response level for the BCAS from "Code 3" to "Code 2" for seventy four event types. The changes are listed in Attachment A for reference. To date, the RAP changes apply to ambulance responses only and those affecting the first responders (Fire services) have not been implemented. As a result of these reduced response levels, the Fire Chief's Association of BC (FCABC), the Greater

Vancouver Fire Chief's Association (GVFCA) and staff have expressed concerns of the negative service impact to the general public and the local Fire Department's resources.

In early 2014, staff received a copy of the letter (Attachment B) prepared by BCEHS providing the rationale for the RAP changes and offering an opportunity to municipalities to discuss further RAP changes. The purpose of this report is to provide an update to Council on the result of a review of Burnaby Fire Department's experience in responding to medical emergencies since the implementation of the revised RAP and to recommend a course of action for Council consideration.

2.0 STAFF REVIEW

In order to assess the impact of the RAP changes on pre-hospital medical emergency service levels, staff have conducted a review of the response data for the 3 1/2 month periods before and after the RAP changes occurred on 2014 October 29. Results of the review are summarized in Table 1 below.

	Number of medical emergency calls received by BFD	BCAS arrival after BFD (average)	BFD waiting for BCAS > 30 min.	BFD waiting for BCAS > 60 min.
August 1, 2013 – October 28, 2013 (89 days)	2,279	6:38 minutes	20	0
October 29, 2013 – January 31, /2014 (95 days)	2,424	9:21 minutes	44	6

Table 1. Emergency Medical Response Review

Although the RAP changes have been implemented for only 4 months and the response data for the amended services collected is of a limited duration, a general conclusion can be drawn that there was a corresponding increase in waiting time since the implementation of RAP changes for the Fire Department first responders to remain on scene awaiting the arrival of the paramedic. Experiences from other Lower Mainland municipalities have also confirmed significant additional delayed response by BCAS since the implementation of the new RAP.

Contrary to the statement in the letter dated 2014 January 3 from BCEHS indicating that most fire departments in BC have decided to match BCAS's new response mode, the BC Fire Chiefs Association has polled its membership regarding fire department response to medical emergencies following the amendments to the RAP for BCAS response. According to the BCFCA's survey, 78% of the reporting cities indicated they have not changed their level of response for incident types that were previously identified as "Code 3". In addition, almost half (48%) of the reporting cities advise they are experiencing increased 'wait times' for ambulance arrival.

3.0 RECOMMENDED COURSE OF ACTION

According to information released by BCEHA, the RAP changes will reduce motor vehicle incidents caused by code 3 response and therefore will improve public safety. However, it should be noted that based on data from Burnaby Fire Department, there is no evidence to support that code 3 emergency response to medical incidents has resulted in more motor vehicle incidents. For the past two years, BFD encountered only three minor low speed (less than 5 kph) fire vehicle incidents that involved minor scraping to a lamp standard and two parked vehicles in a narrow corridor.

As shown in Table 1, it is evident that the waiting time for BCAS service in Burnaby has increased since the implementation of new RAP. Although the full impact of the new RAP on patient care and recovery is not known at this time, it has an immediate negative effect on pre-hospital care services and the fact that public can no longer rely on timely emergency medical service from BCAS as was before the RAP changes.

The BC Health Emergency Act allows emergency medical assistants to provide medical care to patients based on six levels of certification. Most Fire Departments including Burnaby train their personnel as Emergency Medical Assistant – First Responder (EMA-FR), which is the first of the six levels. As such, they are limited to basic medical protocols including assessment of level of consciousness, pulse and respiration; rapid body survey to check for life threatening injuries; secondary assessment consisting of vital signs, physical examination and medical history; cardiopulmonary resuscitation; wound and fracture management; and maintenance of the patient's airway and ventilation where necessary.

A few Fire Departments have trained or are in the process of training their personnel as Emergency Medical Responders (EMR) which is the second level of certification which allows the provision of additional services such as lifting/loading, extrication/evacuation and patient transportation; cervical collar application; blood pressure assessment; oxygen administration; and use of automatic external defibrillators (AEDs). Burnaby Fire personnel are trained in the use of AEDs when dealing with cardiac emergencies and the removal of victims trapped in car accidents by using auto extrication equipment. Although the EMR certification would allow Burnaby firefighters to provide a higher level of emergency pre-hospital care service, it would download some of the BCAS' responsibilities to the Burnaby Fire Department and add approximately $210,000 to the City budget for training half of the department personnel and an additional $50,000 per year to maintain the EMR training.

With the reduced level of ambulance service and the post implementation impact, it is recommended that the City take the following positions and actions:

a) Council reaffirms its position that timely and efficient pre-hospital care services provided by BCAS are integral to the province's overall emergency health service.
b) Council acknowledge that staff intend to retain the existing BFD emergency medical response protocol and not downgrade the response mode to match the new RAP.

c) BCEHS be requested to undertake a full review of post implementation of the new RAP with respect to emergency pre-hospital care, patient waiting time and concerns, and event types, and make necessary adjustment to correct service deficiencies.

d) BCEHS be requested to conduct meaningful consultation with municipal councils, BCFCA, GVFCA and first responders on emergency pre-hospital service level prior to considering further changes to RAP.

e) The Chairperson of BCEHS be invited to meet with Council to discuss the new RAP, service levels and future change management process.

4.0 CONCLUSION

Firsthand experience of BFD personnel has shown that the new RAP has resulted in delayed ambulance response to medical incidents in Burnaby. For the first 3 ½ months period since the new RAP implementation, Fire Department first responders have experienced an average wait of 9:21 minutes for BCAS to arrive and the number of incidents where department personnel waited for longer than 30 minutes has more than doubled, including six incidents where the wait was greater than one hour.

While BCEHS has reduced its service to the public by reducing the number of calls that medically require a code 3 response, the City remains committed to responding to emergency medical calls from its citizens in a timely manner. More than 70 types of medical incidents have been downgraded from code 3 to 2 under the new RAP, staff are of the opinion that the changes made on the basis of clinical and statistical data have ignored the important needs of immediate scene assessment and stabilization as well as patient conditions and status updates at the scene if the event is escalated to more serious than reported or as classified by the call taker. Furthermore, the delayed ambulance response also requires the BFD's resources to stay at the scene longer and potentially could impact the BFD's ability to respond to other emergencies in a timely manner.

To address the impact of the new RAP, it is recommended that the proposed course of action as outlined in Section 3.0 of this report be endorsed by Council.

Doug McDonald
FIRE CHIEF

Copied: Deputy City Manager (Lambert Chu)

Attachment (2)

" ATTACHMENT A "

2013 Resource Allocation Plan (RAP) Updates – BCAS only
*RAP is HOT (code 3) unless otherwise indicated

Change from HOT to COLD response

Event Type	Description	Current RAP	New RAP
01C01	Abdo Pain - SUSPECTED aortic aneurysm	BLS-3-FR	BLS-2-FR
01C02	Abdo Pain - Known aortic aneurysm	BLS-3-FR	BLS-2-FR
01C03	Abdo Pain - Fainting or near fainting	BLS-3	BLS-2
01C04	Abdo Pain - Female with fainting or near fainting	BLS-3	BLS-2
01C05	Abdo Pain - Male with pain above navel	BLS-3	BLS-2
01C06	Abdo Pain - Female with pain above navel	BLS-3	BLS-2
02B01	Allergy / Sting - Unknown status	BLS-3	BLS-2
02B01i	Allergy / Sting - Unknown status - Inj admin adv	BLS-3	BLS-2
02B01m	Allergy / Sting - Unknown status - Med admin adv	BLS-3	BLS-2
03B01	Animal Bites - POSSIBLY DANGEROUS body area	BLS-3-FR	BLS-2-FR
04B01a	Assault - POSSIBLY DANGEROUS body area - Assault	BLS-3-FR	BLS-2-FR
04B01s	Assault - POSSIBLY DANGEROUS body area - Sexual assault	BLS-3-FR	BLS-2-FR
05C03	Back Pain - Fainting or near fainting	BLS-3-FR	BLS-2-FR
06C01	Breathing Probs - Abnormal breathing	BLS-3-FR	BLS-2-FR
06C01a	Breathing Probs - Abnormal breathing - Asthma	BLS-3-FR	BLS-2-FR
08C01	HAZMAT /CBRN - Alert with difficulty breathing	BLS-3-FR	BLS-2-FR
08C01b	HAZMAT/CBRN - Alert with difficulty breathing - Biological	BLS-3-FR	BLS-2-FR
08C01c	HAZMAT/CBRN - Alert with difficulty breathing - Chemical	BLS-3-FR	BLS-2-FR
08C01g	HAZMAT/CBRN - Alert with difficulty breathing - Smell of gas	BLS-3-FR	BLS-2-FR
08C01m	HAZMAT/CBRN - Alert with difficulty breathing – CO	BLS-3-FR	BLS-2-FR
08C01n	HAZMAT/CBRN - Alert with difficulty breathing - Nuclear	BLS-3-FR	BLS-2-FR
08C01r	HAZMAT/CBRN - Alert with difficulty breathing - Radiological	BLS-3-FR	BLS-2-FR
08C01s	HAZMAT/CBRN - Alert w/ difficulty breathing - Suicide attempt	BLS-3-FR	BLS-2-FR
08C01u	HAZMAT/CBRN - Alert with difficulty breathing - Unknown	BLS-3-FR	BLS-2-FR
12B01	Convulsions - Effective breathing not verified	BLS-3-FR	BLS-2-FR
12B01e	Convulsions - Effective breathing not verified - Hx seizures	BLS-3-FR	BLS-2-FR
13C03	Diabetic - Abnormal breathing	BLS-3-FR	BLS-2-FR
13C03c	Diabetic - Abnormal breathing - Aggressive	BLS-3-FR	BLS-2-FR
15C01e	Electrocution - Alert and breathing normally - Electrocution	BLS-3-FR	BLS-2-FR
15C01l	Electrocution - Alert and breathing normally - Lightning	BLS-3-FR	BLS-2-FR
15D08e	Electrocution - Unknown status - Electrocution	BLS-3-FR	BLS-2-FR
15D08l	Electrocution - Unknown status - Lightning	BLS-3-FR	BLS-2-FR

17B01	Falls - POSSIBLY DANGEROUS body area	BLS-3-FR	BLS-2-FR
17B01g	Falls - POSSIBLY DANGEROUS body area - On the ground	BLS-3-FR	BLS-2-FR
17B01j	Falls - POSSIBLY DANGEROUS body area - Jumper	BLS-3-FR	BLS-2-FR
17B02	Falls - SERIOUS Hemorrhage	BLS-3-FR	BLS-2-FR
17B02g	Falls - SERIOUS Hemorrhage - On the ground	BLS-3-FR	BLS-2-FR
17B02j	Falls - SERIOUS Hemorrhage - Jumper	BLS-3-FR	BLS-2-FR
18C02	Headache - Abnormal breathing	BLS-3-FR	BLS-2-FR
19C07	Heart Probs - Unknown status	BLS-3-FR	BLS-2-FR
20C01c	Heat / Cold - Heart attack or angina history - Cold exposure	BLS-3-FR	BLS-2-FR
20C01h	Heat / Cold - Heart attack or angina history - Heat exposure	BLS-3-FR	BLS-2-FR
21B01	Hemorrhage - POSSIBLY DANGEROUS Hemorrhage	BLS-3	BLS-2
21C01	Hemorrhage - Hemorrhage through TUBES	BLS-3	BLS-2
21C02	Hemorrhage - Hemorrhage of dialysis fistula	BLS-3-FR	BLS-2-FR
21D03	Hemorrhage - DANGEROUS Hemorrhage	BLS-3-FR	BLS-2-FR
24C01	Pregnancy - 2nd TRIMESTER hemorrhage or MISCARRIAGE	BLS-3	BLS-2
24C02	Pregnancy - 1st TRIMESTER SERIOUS hemorrhage	BLS-3	BLS-2
26C02	Sick Person - Abnormal breathing	BLS-3-FR	BLS-2-FR
29B01	MVA - Injuries	BLS-3	BLS-2
29B01u	MVA - Injuries - Unknown px	BLS-3-FR	BLS-2-FR
29B01v	MVA - Injuries - Multi Patient	BLS-3-FR	BLS-2-FR
29B01x	MVA - Injuries - Unk Px Add Vehs	BLS-3-FR	BLS-2-FR
29B01y	MVA - Injuries - Multi px Add Veh	BLS-3-FR	BLS-2-FR
29B02	MVA - SERIOUS hemorrhage	BLS-3-FR	BLS-2-FR
29B02u	MVA - SERIOUS hemorrhage - Unknown px	BLS-3-FR	BLS-2-FR
29B02v	MVA - SERIOUS hemorrhage - Multi Patient	BLS-3-FR	BLS-2-FR
29B02x	MVA - SERIOUS hemorrhage - Unk Px Add Vehs	BLS-3-FR	BLS-2-FR
29B02y	MVA - SERIOUS hemorrhage - Multi px Add Veh	BLS-3-FR	BLS-2-FR
29B03	MVA - Other hazards	BLS-3	BLS-2
29B03u	MVA - Other hazards - Unknown px	BLS-3	BLS-2
29B03v	MVA - Other hazards - Multi Patient	BLS-3	BLS-2
29B03x	MVA - Other hazards - Unk Px Add Vehs	BLS-3	BLS-2
29B03y	MVA - Other hazards - Multi px Add Veh	BLS-3	BLS-2
29B04	MVA - Unknown status	BLS-3	BLS-2
29B04u	MVA - Unknown status - Unknown px	BLS-3	BLS-2
29B04v	MVA - Unknown status - Multi Patient	BLS-3	BLS-2
29B04x	MVA - Unknown status - Unk Px Add Vehs	BLS-3	BLS-2
29B04y	MVA - Unknown status - Multi px Add Veh	BLS-3	BLS-2
30B01	Trauma Injury - POSSIBLY DANGEROUS body area	BLS-3-FR	BLS-2-FR

30B02	Trauma Injury - SERIOUS hemorrhage	BLS-3-FR	BLS-2-FR
31A02	UC / Fainting - Fainting episode(s) and alert - Cardiac history	BLS-3-FR	BLS-2-FR
31C01	UC / Fainting - Alert with abnormal breathing	BLS-3	BLS-2
31C03	UC / Fainting - Female with abdominal pain	BLS-3	BLS-2
Change from COLD to HOT response			
32B03	Unknown - Unknown status	BLS-2	BLS-3
32B04	Unknown - Callers language not understood	BLS-2	BLS-3

ATTACHMENT B

BCEHS | BC Emergency Health Services

January 3, 2014

File: 200-20/RAP
Cliff: 990287

To Your Worship,

Re. Local Government Interest in First Responder Services

One of the challenges all emergency services face is ensuring the safety of the travelling public while responding to incidents using the lights and siren. Anytime a first responder agency, be it police, fire or ambulance, responds on an emergency basis, the risk of a motor vehicle incident increases, whether or not the emergency vehicle is involved directly. As you can understand, the safety of the public and the staff that provide the services to the public is important to the BCEHS board.

Additionally, all emergency service providers must ensure that there are enough resources available to provide a timely, safe and quality response to the public while also enabling resiliency in the system to respond to major incidents or other spikes in demand on any given day.

Under the Emergency Health Services Act, the Board of BC Emergency Health Services (BCEHS) is responsible for governing all emergency medical services provided in British Columbia, including those provided by both BC Ambulance Service (BCAS), first responder agencies, BC Patient Transfer Network and Trauma Services BC. We take our responsibility to patients and taxpayers seriously; we are committed to ensuring patient needs come first and using all resources as effectively and efficiently as possible.

On November 12, 2013, BCEHS President Michael MacDougall sent a letter outlining the rationale and process used to update the Resource Allocation Plan (RAP) for ambulances and first responders. The RAP assigns the appropriate resource(s) and response mode (lights and siren or routine) for over 800 different types of pre-hospital medical calls. The evidence-based review was undertaken to ensure that the right resource, responds to the right patient, at the right time and the public isn't exposed to unnecessary risk from emergency vehicles responding using lights and siren when not clinically required.

The results of the review reduced the number of call types requiring a lights and siren response and/or Advanced Life Support ambulances to attend. The review also found that first responders were not required to attend 35 per cent of the medical calls that they are now notified of by BCAS because the patients do not require their medical services. Additionally, if a first responder is assigned a lower priority medical call, there is an increased risk that they are not available to respond to calls of a critical nature where they can have the greatest

impact on a patient's outcome. The RAP does not affect the other services fire departments provide such as scene safety or vehicle extraction. A report summarizing the RAP review is available online at http://www.bcas.ca/about-us/reports-statistics/. If you wish to respond to all the incidents, irrespective of the response rating, this is an issue that we would be pleased to discuss with you.

To date, the RAP changes that affect ambulance responses have been implemented, but those affecting first responders have not. Following the review process, BCEHS heard from many municipal fire departments providing first responder services that they were interested in assuming a greater role in pre-hospital care. However, at the Union of BC Municipalities Convention (UBCM), many local governments felt that it was important to use public resources as efficiently and effectively as possible and only wanted to attend medical calls where first responders could have a significant positive impact on the patient's outcome. Most often these instances are during calls involving trauma or cardiac arrests.

It is important to note that historically first responders have driven to all medical calls using lights and siren even if the ambulance was responding routine. Since the RAP changes for ambulances were implemented earlier this fall, most fire departments in B.C. have decided to match BCAS's response mode and only drive lights and siren if the patient's condition warrants an emergency driving response. This change is a significant improvement in public safety for communities throughout B.C. and an example of the positive benefit of collaboration between the groups involved.

BCEHS and BCAS aim to provide pre-hospital patient care that is safe, timely and of high quality. The BCEHS Board of Directors believes it is important that our partners in pre-hospital care, municipalities and first responders, have an opportunity to provide input into how services are delivered, particularly when changes are being contemplated. BCEHS has been speaking with delegates at the UBCM Convention, the Fire Chiefs' Association of BC, the Greater Vancouver Fire Chiefs Association, an expanded BCEHS First Responder Committee that included several fire chiefs from throughout B.C., individual local governments and other stakeholders about the RAP changes.

BCEHS is in the process of setting up briefings for those municipalities which requested an opportunity discuss the further implementation of RAP following Mr. MacDougall's letter of November 12, 2013. If you want to provide input or require more information, please contact Shelly Drew at Shelley.Drew@bcehs.ca or call 250 474-7582.

The BCEHS Board of Directors believes that with your perspectives being considered, we will be able to provide the direction needed to ensure that the BCEHS First Responder Program can be refined in a way that meets the needs of individual communities.

Thank you in advance for your attention to this matter.

Sincerely,

G.W. (Wynne) Powell CPA, FCGA, D. Tech (Hon.)
Board Chair

Head Office
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