Conseil des Services du District de
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District Services Board

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Report To:	Program Planning Committee
From:	Michael MacIsaac, Chief of EMS
Date:	June 27, 2012
Re:	New Ambulance Response Time Standard

RECOMMENDATION

That the Manitoulin-Sudbury DSB adopt the new ambulance response time standard as presented by the EMS Department which is in accordance with the Ambulance Act, Response Time Performance Plans.

REPORT

Purpose

The purpose of this report is to provide the DSB Program Planning Committee with a final numerical response time strategy in time for submission to the Ministry of Health and Long Term Care (MOHLTC) by October 31, 2012, as dictated in the Ambulance Act O. Reg. 257/00. Additionally this report should provide the DSB Program Planning Committee with information on timelines for future developments of this plan.

Back Ground

For a full background on the topic of the new ambulance response time standard for Ontario this report should be taken in conjunction with the previous New Ambulance Response Time Standard Issue Report presented at the June 2010 DSB Board meeting.

History

The EMS Department has been able to fully review statistics regarding the new response criteria over the past 12 months. We have been able to review both the MOHLTC ADDAS database and our own internal ZOLL EPCR Data. It must be noted that confidence in the ADDAS database is lacking as noted by an approximate 5,000 calls missing in comparison with our ZOLL EPCR data. Even though the ADDAS

statistics are not 100% accurate, there should be enough valid data to create a good enough sample size to analyze.

It must be noted that the original implementation of the New Response Time Standard was delayed by the MOHLTC for 2 years because of ADDAS issues. The main issue was that the statistics in the new response time standard are to be reflective of patient presentation upon paramedic arrival and it wasn't until March of 2010 that the Central Ambulance Communication Centres (CACC's) starting tracking the Canadian Triage and Acuity Scale (CTAS) of patients upon contact as opposed to CTAS of patient upon leaving the scene.

Method of Analysis ADDAS

Call statistics from 2011 were evaluated as a provision of the most accurate and recent data. Figures were evaluated on the basis of the new MOHLTC response time reporting requirements. As such, the calls from 2011 were divided on the basis of Sudden Cardiac Arrest (SCA), CTAS 1, CTAS 2, CTAS 3, CTAS 4, & CTAS 5. These specified calls were evaluated on the basis of mean time, median time, and actual 90th percentile. Mean time is a strict average of the group of times. It is a simple calculation that can be sensitive to extremes when a smaller sample size is used. Median time is the middle time in the whole list of times. It means that half of the times are higher and half of the times are lower. The 90th Percentile time represents the time that at least 90 percent of the calls were responded to within. The results were as follows.

2011 ADDAS	# of Calls	Mean Time	Median Time	90th% Time
SCA	37	00:13:03	00:10:19	00:21:16
CTAS 1	62	00:12:21	00:11:38	00:21:10
CTAS 2	271	00:11:58	00:09:46	00:24:47
CTAS 3	786	00:12:43	00:10:35	00:23:36
CTAS 4	373	00:11:33	00:09:10	00:21:36
CTAS 5	219	00:10:16	00:07:49	00:20:47

Understanding that the *target percentage of time achieved* has already been set by the MOHLTC for SCA and CTAS 1 calls, further analysis of how we fared in 2011 was completed. In 2011 we achieved a 6 minute response time for SCA calls in the 15.3th percentile. Additionally in 2011 we achieved an 8 minute response time for CTAS 1 calls at the 32.7th percentile.

If we were to evaluate all CTAS 2-5 calls together we find 1495 calls with a mean time of 12:20, a median time of 10:08 and a 90th percentile time of 23:25. Again, it must be noted that the great variance in number of calls further represents inaccuracy of data entered into the ADDAS system.

Method of Analysis ZOLL EPCR

Utilizing our own internal ZOLL EPCR data reveals a greater accuracy in terms of data. As per MOHLTC Documentation Standards, a Paramedic must complete a Patient Care Record for each call. We utilize an electronic method to do so and as such the data is available for review. Comparing the same criteria as we did above utilizing the ADDAS

garners different results. Please note that in 2011 we did not track call times by the second as is done in ADDAS. We have been tracking seconds in 2012.

2011 ZOLL EPCR	# of Calls	Mean Time	Median Time	90th% Time
SCA	66	16:37	11.00	32:00
CTAS 1	99	14:13	11:00	24:00
CTAS 2	847	13:13	10:00	26:00
CTAS 3	2449	11:32	10:00	26:00
CTAS 4	1480	12:10	9:00	26:00
CTAS 5	941	7:54	5:00	23:00

Again, understanding that the *target percentage of time achieved* has already been set by the MOHLTC for SCA and CTAS 1 calls, further analysis of how we fared in 2011 was completed. In 2011 we achieved a 6 minute response time for SCA calls in the 20th percentile. Additionally in 2011 we achieved an 8 minute response time for CTAS 1 calls at the 38.7th percentile.

If we were to evaluate all CTAS 2-5 calls together we find 5717 calls with a mean time of 11:21, a median time of 09:00 and a 90th percentile time of 26:00.

Previous Draft Submission

As previously mentioned, originally we were to have a plan in place for the start of 2011. The MOHLTC delayed the implementation by 2 years and that has given us further time to analyze the data at our disposal. Below you will see a table of our original draft submission in relation to actual performance as determined by both ADDAS and ZOLL. You will note that on every target we met or bettered our estimates as based on the draft 2010 submission.

CRITERIA	Draft 2010 Submission	2011 ADDAS	2011 ZOLL EPCR
SCA within 6 min	15%	15.3%	20.0%
CTAS 1 within 8 min	25%	32.7%	38.7%
CTAS 2 within 25 min	80%	86.8%	87.8%
CTAS 3 within 25 min	80%	89.1%	89.0%
CTAS 4 within 25 min	80%	91.3%	89.0%
CTAS 5 within 25 min	80%	83.3%	91.1%

MOHLTC 2013 Submission

On the next page you will see a pared down copy of the submission template that we will use to submit our 2013 Response Time Plan to the MOHLTC.

For the calendar year of 2012, from January 1 to December 31,

i. Designated Delivery Agent (DDA) - SUDDEN CARDIAC ARREST

15 percent of the time, within 6 minutes from the time ambulance dispatch conveys the call information to the paramedic, **Manitoulin-Sudbury DSB** will endeavour to have a responder equipped and ready to use an AED at the location of a patient determined to be in sudden cardiac arrest.

ii. EMS Designated Delivery Agent - CTAS 1

25 percent of the time, within 8 minutes from the time ambulance dispatch conveys the call information to the paramedic, **Manitoulin-Sudbury DSB** will endeavour to have a PARAMEDIC as defined by the Ambulance Act and duly equipped at the location of a patient determined to be CTAS 1.

iii. EMS Designated Delivery Agent - CTAS 2, 3, 4, 5

Manitoulin-Sudbury DSB will endeavour to have a PARAMEDIC as defined by the Ambulance Act and duly equipped at the location of a patient determined to be CTAS 2, 3, 4, 5 within a period of time determined appropriate by the DDA and noted below in Table 1, or as resources permit (level of effort):

CTAS 2, 3, 4, 5 EMS Delivery Agent Commitment

CTAS	Target time from paramedic received until on scene	% Target
2	**25 minutes**	**80%**
3	**25 minutes**	**80%**
4	**25 minutes**	**80%**
5	**25 minutes**	**80%**

Rationale for Submission

You will note that we have kept the same submission as before. The approach that we have taken in reporting the first set of numbers should be taken to be quite conservative as noted in the previous issue report. Doing so will allow us to grow and become more comfortable with the statistics that we are using without promising something to the communities that is impossible to deliver.

It cannot be overstated that the MOHLTC ADDAS statistics we are reporting are truly best estimates at this point. Conversely, we have full confidence in our own ZOLL EPCR data. The biggest problem is that while we will utilize our ZOLL EPCR data as the most accurate data, the MOHLTC does not mandate that every service have an electronic charting system in place. As such it is felt that it will not be our ZOLL EPCR data that the MOHLTC will require us to use in reporting our success or failures in meeting our objectives. We feel that we will be measured against our statistics in this regard by utilizing the MOHLTC ADDAS data. Internally, we will most definitely measure against what we know to be the "true" data (ZOLL EPCR) and we will provide the MOHLTC with our findings should we find glaring inaccuracies in their data

Timelines for Submission

The MOHLTC has set out some timelines regarding the new response time plan. It is suggested that October 1st of every year, the DDA's begin development of their response time plans for the next calendar year. On October 31st of each year each DDA is to submit their plan to the MOHLTC. The plans are to run by calendar year. Every March 1st beginning in 2014 each DDA is to submit performance reports to the MOHLTC detailing their actual responses for the previous year based on their plan. The legislation emphasizes that each DDA shall ensure that throughout the year the established plan is continuously maintained, enforced and evaluated and, where necessary, updated, whether in whole or in part. It is the intent of this department to evaluate the plan on an ongoing basis but to not alter the plan in year unless absolutely necessary. It is important to allow a plan to balance itself out over time, however if the plan is not meeting the appropriate needs it should be altered in year and the legislation allows such.

CONCLUSION

It is the desire of the EMS Department of Manitoulin-Sudbury DSB to submit to the MOHLTC our new response time plan as laid out in this report. As indicated previously we will monitor the plan and its effectiveness and only pursue a change in the plan, in year, if absolutely necessary.