




CITY OF HAMILTON
HEALTHY AND SAFE COMMUNITIES DEPARTMENT
Hamilton Paramedic Service

TO:	Chair and Members Emergency and Community Services Committee
COMMITTEE DATE:	October 7, 2021
SUBJECT/REPORT NO:	Electronic Patient Care Record System Standardization (HSC21035) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Cliff Eggleton (905) 546-2424 Ext. 7744
SUBMITTED BY:	Michael Sanderson Chief, Hamilton Paramedic Service Healthy and Safe Communities Department
SIGNATURE:	

RECOMMENDATION(S)

- (a) That the Interdev Technologies Inc. a Valsoft Company (Interdev) "iMedic" Electronic Ambulance Call Reporting System program (iMedic) be designated a standardized product pursuant to City Procurement Policy, Section 4.14, Policy # 14 Standardization, with this designation to be reviewed in 2027;
- (b) That the iMedic program and its associated products including new modules if any, as well as support and professional services, be procured on a single-source basis from Interdev for a five (5) year time period extending through to December 31, 2027; and,
- (c) That the Chief of the Hamilton Paramedic Service (HPS), or his designate, and upon successful completion of negotiations with iMedic, be authorized and directed to enter into and sign, on behalf of the City of Hamilton, all negotiated agreements and all necessary associated documents with Interdev, with content acceptable to the General Manager of Healthy and Safe Communities, and in a form satisfactory to the City Solicitor for the iMedic program and its associated products including new modules if any, as well as support and professional services, subject to Procurement Policy, Section 4.2, Policy # 2 Approval Authority.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

EXECUTIVE SUMMARY

The Electronic Ambulance Call Reporting System for Emergency Medical Services Standardization/Agreement Approval Report CES16057 previously approved by Council on December 12, 2016, designated the iMedic system as a standardized product, with the designation to be reviewed at the end of term of any new agreement. It authorized the Chief, Hamilton Paramedic Service or designate to negotiate a single-source agreement with Interdev for provision of the iMedic program and associated products, support and professional services through the end of 2021.

Ambulance call reporting is a legislated requirement under Ontario Regulation 257/00 and is governed by the Ontario Ambulance Documentation Standards. Legislation permits reports to be written or electronic, but electronic ambulance call reporting (eACR) facilitates data capture and collection for use in trends analysis and business process improvement. More than 90% of Ontario Paramedic Services now use and benefit from eACR.

iMedic, the Interdev trade name for its eACR program, is a proprietary specialized electronic medical record software application used by the HPS and most other Ontario services that use electronic call reporting. iMedic was obtained from Interdev in 2009 through a competitive process (RFP C3-02-09), with the resulting contract having been subsequently renewed through the end of December 2021.

While two other vendors offer electronic medical record systems for ambulance services in Ontario, the majority of Ontario services use iMedic and its offered tools, functionality and features that are not currently available from the alternative products. After initial implementation, Interdev has worked collaboratively and diligently with the HPS and others to further enhance iMedic capabilities. Interdev has recently worked with HPS to provide a live Dashboard that provides immediate feedback from the front-line operations on how our system is performing at any moment in time along with its response capabilities that has become an invaluable piece of data streaming information. HPS has continued to make a significant investment in iMedic software, with staff training and ongoing procedures development and realized significant benefit from data analysis using program tools. Change to an alternative program would negate the investment already made in iMedic, would result in the loss of the live dashboard and would incur significant cost for staff to complete retraining and procedural changes, and result in the loss of the capability to easily analyse multiple years of data collected on a common system using a known process.

To support our operational effectiveness and facilitate the integration of future capability enhancements, it is recommended that iMedic continue to be designated a "Standard" system pursuant to Procurement Policy #14 for the duration of any contract term. As the iMedic product can only be obtained from Interdev, standardization will result in single-

source purchase, and single-source procurement approval is therefore also recommended.

Alternatives for Consideration – See Page 6

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The contract costing structure is complex, with costs for various functional products being based on the quantity of computers in use, the number of full-time equivalent (FTE) users, the quantity and value of licenses in use or other factors. Total annual negotiated contractual costs included in the Council Approved Operating Budgets per year for 2019, 2020 and 2021 were \$227,069, \$234,830 and \$242,747 respectively.

These costs were negotiated based on a 200 FTE user count from 2016 negotiations. The current FTE user count in the department is 322. This affects only one component of the pricing model – licensing. Future costs cannot be determined until approval is granted to negotiate a new contract and pricing with Interdev. However, HPS has increased FTE users from the 2016 negotiations and that will likely result in increased licensing pricing as well as year over year increases of about 3% annually for all other components of the pricing model. Experience would indicate that this increase is reasonable, given the consistent delivery of value-added improvements to the product.

Overall, the expected increase in expense for the iMedic program is approximately 10%, and it will be included in the 2022 Operating Budget.

Staffing: N/A

Legal: Ambulance call reporting is a legislated requirement under Ontario Regulation 257/00 and is governed by the Ontario Ambulance Documentation Standards. Any new agreement with Interdev will be in a form satisfactory to the City Solicitor.

HISTORICAL BACKGROUND

In 2009, HPS responded to the ongoing increasing yearly 911 calls for service along with a need for automated record keeping and data management support. HPS allocated funding through project CAP-7640951101 for a Request for Proposals (RFP) for an “Electronic Ambulance Call Reporting (eACR) Solution” to be issued that year. The successful proponent, Interdev, was awarded Contract C3-02-09 to “supply, install and configure a fully functional solution for eACR mobile and fixed workstation data

entry, database design and implementation and reporting, and be able to support future CAD integration and future hospital integration”. The initial contract was for a five-year period, ending in December 2014.

Various changes were made to contracted services between 2010 and 2014, including acquisition of new modules, transfer of the application to new ruggedized computers, and a change to vendor-hosting rather than having the application and data residing on (or being “hosted” by) City servers. On June 11, 2014, Council approved standardization and negotiation of a new single-source agreement with Interdev through the end of 2016 (Report CES14016) which included detail on all changes prior to 2014. On Dec 12, 2016, Council approved standardization and negotiation of a new single source agreement with Interdev through December 31, 2021 (Report CES16057).

Transition from paper reports to the electronic system occurred over several years, being fully completed in 2015.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Ambulance Call reporting is a legislated requirement under Ontario Regulation 257/00 and is governed by the Ontario Ambulance Documentation Standards. Legislation allows reports to be written or electronic, but electronic ambulance call reporting facilitates data capture and aggregation for use in trends analysis and process improvement, with significant benefit to the Service.

Except for the current \$1,351 annual cost for aggregation and download of Ministry Ambulance Dispatch Reporting System (ADRS) data, all services provided by Interdev have been “Maintenance fees for software and computer hardware for information systems previously acquired” and are therefore exempt from the Procurement policy pursuant to Schedule B(6)(b). As the system is costly and alternatives exist, periodic review is warranted so standardization and single-source approval is sought prior to the commencement of each contract term.

RELEVANT CONSULTATION

Corporate Services, Procurement Section – Consultation with Procurement staff regarding the interpretation and application of Procurement policy.

Corporate Services, Financial Planning, Administration and Policy – Consultation with Finance to verify financial information.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The advantages of designating iMedic as a “Standard” system obtained on a single-source basis from Interdev include continuity of a proven capability, facilitation of ongoing and future integration with other systems and the ability to leverage the significant investment already made in software, hardware, procedures development, and training.

The benefits of the automated database call reporting system for the past six years has proven to be invaluable for the division. Some of these benefits include:

Ambulance Call Reporting (ACR) Documentation Quality Review

Report detail and accuracy is very important because the ACR is used by hospital staff in performing preliminary patient diagnosis. Handwritten reports are challenging to read and occasionally lack detail, and the 2013 Ministry of Health and Long-Term Care (MOHLTC) Ambulance Service Review Team review of HPS manual reports specifically noted that “Documentation of ACRs...did not meet legislated standards.” The iMedic program incorporates automated edits and tools to assist paramedics in completing documentation.

Data Analysis for High User Identification – Community Paramedicine

Analysis of eACR using iMedic tools enabled the Service to identify thousands of patients who had called for an ambulance more frequently than four times per year. Working within the “Circle of Care”, Community Paramedics used this information to assist willing participants from this group to find alternatives to emergency ambulance transport, and several patients have never called for paramedic services again, thereby eliminating unnecessary calls.

Data Support for Decision Making

In the past, staff were required to prepare custom query programs to extract information from available fragmented historical data, the iMedic program offers instant access to real-time data (including non-confidential consolidated data from all iMedic users), numerous standard electronic reports and a variety of powerful analysis and decision support tools. Data from iMedic has been used to inform decisions on the positioning of ambulances to optimize response times, to select specific clinical protocols for emphasis during refresher training and to provide quality feedback to paramedics regarding the treatment provided to patients.

COVID-19

To assist in the safety of our paramedics and staff, iMedic worked with the City to initiate an early warning system that identified potential COVID-19 patients from the 911 call taker questions to the paramedics’ assessment notes on the call. The iMedic Situational Awareness Dashboard would highlight each potential COVID-19 call in real

time alerting staff prior to arriving at the address or after leaving the address if the patient was assessed as COVID-19 positive, if missed by the 911 call taker. The situational awareness dashboard was implemented in 2019 to assist operational staff in real time as to which type of calls were currently coming into the 911 centre, how many ambulances were available at any one time and details and length of time regarding offload delays at each of the city hospitals. The collaborative work to expand the dashboard to identify COVID-19 cases has shown to be invaluable and the data is shared with the City Emergency Operations Centre (EOC) daily during the ongoing pandemic emergency.

ALTERNATIVES FOR CONSIDERATION

The alternative to the recommended approach is to conduct a new competitive process for the Electronic Ambulance Call Reporting System.

Pros

The advantage to this approach is that it may confirm that the selected vendor is indeed offering an acceptable product at the best price, with no difference in staffing or legal considerations.

Cons

There are currently only three vendors offering a suitable system within the Ontario market. This is a specialized service with limited competition. All 58 land ambulance services in Ontario are using an eACR, with 48 (83%) using the Interdev iMedic product. Further, a shift to a different system would necessitate extensive and lengthy additional paramedic training that would take more than a year to fully complete and transition along with new process management programs to be developed. The resulting loss and capability to easily analyse multiple years of data collected on a common system using a known process would be damaging. The loss of the live situational dashboard would be significant for frontline operations.

Financial

Selection of a different system would forego the considerable investment already made in iMedic and incur additional costs for development and evaluation of an RFP, carry out retraining of all staff as the alternative systems operate differently, re-do system integration, and draft new detailed procedural documentation. The training cost alone, based on a minimum of 8 hours per paramedic, would likely exceed \$160,000.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

APPENDICES AND SCHEDULES ATTACHED

None