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May 5, 2014

Mr. Steve Corbeille, Finance Director / Treasurer
City of Manitowoc
900 Quay Street
Manitowoc, WI 54220

Dear Mr. Corbeille:

We would like to thank City of Manitowoc for allowing EMS Medical Billing Associates, LLC (EMBA) to provide a limited review of the City's EMS Revenues and Patient Care Report Documentation for 2012 and 2013. Enclosed, please find the review document for your consideration.

If you have any questions or concerns regarding the review, please do not hesitate to contact me via our business address listed above, my email at eric.kiefer@emsmedicalbilling.com, or our toll free line at 1-866-950-4400 x 3259.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric P. Kiefer', is written over a horizontal line.

Eric P. Kiefer
Marketing Director

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**Review of EMS Billing Revenue
And
Patient Care Report Documentation Compliance**

City of Manitowoc
900 Quay Street
Manitowoc, WI 54220

**Respectfully Prepared and Submitted By:
EMS Medical Billing Associates, LLC**

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**City of Manitowoc
Summary of EMS Revenue and Documentation Review
2012-2013**

Description:

EMS Medical Billing Associates, LLC (EMBA) was contracted by the City of Manitowoc to conduct a limited review of the revenue generated by the City's Emergency Medical Services (EMS), and to review documentation compliance levels using a sampling of the City's EMS patient care reports. All data utilized was from calendar years 2012 and 2013.

EMBA Qualifications:

EMBA is a full-service EMS / Fire Billing, consulting, and data management firm. EMBA only bills for fire and EMS services, allowing us to stay focused on the rules and regulations that pertain to the EMS billing industry. Incorporated in 2003, EMBA processes over 115,000 claims annually, and represents some of the largest and most complex municipal and private EMS providers in Wisconsin, such as the Green Bay Fire Department, Two Rivers Fire Department, Sheboygan Fire Department, and Paratech Ambulance Service. Because of our experience and volume, EMBA is uniquely qualified to provide this service and make recommendations based on decades of conforming to the ever-changing landscape of EMS billing.

Objectives:

The objective of the financial portion of our review was to utilize the monthly and annual reports provided by the City's current billing vendor to determine the following information:

- Gross collection rate for 2012 and 2013
- Net collection rate for 2012 and 2013
- Net revenues generated for 2012 and 2013 dates of service
- Revenues generated for the period of 2012 and 2013
- The City's aggregate commission rate
- Provide a review of the City's EMS billing financial health, and recommendations to improve collections

The objective from the EMS documentation portion of our review was to choose a random sampling of seventy (70) the City's EMS patient care reports from calendar years 2012 and 2013 and review each report for completeness and accuracy in five specific areas:

- Valid HIPAA / Billing Signature Compliance
- Sufficient Documentation to Establish Medical Necessity
- Narrative Completeness
- Proper Documentation of Loaded Mileage
- Sufficient Documentation of Procedures and Drugs Provided

EMBA was also asked to review sixteen (16) specific auto accident incidents to ascertain the payment history on each incident.

City of Manitowoc EMS Revenue/Documentation Review

Review Processes:

Documentation Data:

EMBA's process to select patient care reports for review began by filtering all incidents in the review period by each payer / insurance category as summarized in the monthly report labeled "Phase 1 Call Report" for December 2012 and 2013. EMBA then selected the City's six most heavily-utilized payer categories listed in those reports. They were:

- Medicare WI – Sig Needed
- Private (Self Pay)
- BCBS @ WI Fond du Lac – Sig Needed
- Medical Assistance – WI
- Network Platinum Plus – MCHMO
- Signature Needed

EMBA then utilized the monthly report labeled "Phase 1 Charge Report" to select incidents at random from March – December of 2012 and January – December of 2013. EMBA chose not to select incidents from January - February of 2012, as this was the start of the billing vendor's contract period and included incidents from 2011. EMBA also reviewed the payment history of each incident, which will be summarized in the financial review section of this report.

Revenue Data:

EMBA's process to review the revenue generated by the City's EMS services began by identifying the monthly and annual reports provided by the City's current billing vendor that detailed and summarized various financial data, including:

- Gross and net charges by each billing phase
- Gross and net payments by each billing phase
- Mandatory and Voluntary Adjustments / Write-Offs
- Gross and net collection Rates

The current vendor's annual reports, charge reports, and credit reports were utilized in determining the financial objectives of this review.

Data Provided by City

EMBA was provided with the following information in which to prepare our review:

- City of Manitowoc resolution 697 adopted on 12/19/2012, documenting all EMS billing rates.
- City of Manitowoc charge sheet used by EMTs in the field for supplementary documentation, dated 11/2011.
- Copy of Collection Services Agreement between Lifeline Systems Inc., d/b/a Lifequest and the City of Manitowoc.



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City of Manitowoc EMS Revenue/Documentation Review

- City of Manitowoc Physician Certification Statement for non-emergency ambulance service. Typically used on inter-facility transports, this form is to be completed by appropriate medical personnel to document why ambulance transport of a patient is medically necessary.
- CMS form CMS-R-131, Ambulance Beneficiary Notice of Non-Coverage (ABN), dated 3/11. This form is presented to patients prior to receiving certain EMS services that may not be covered by insurance, thus making the patient financially responsible.
- Emergency Medical Dispatch (EMD) protocols used by the Manitowoc Fire Department. Dispatch protocol information is instrumental in determining the correct service level for billing.
- Patient care reports with any documentation attached.
- Monthly and annual financial reports provided to City.

City of Manitowoc EMS Revenue/Documentation Review**Review Results****Results of Financial Review****Gross and Net Revenues**

In reviewing the annual reports provided by the current billing vendor, EMBA determined the following:

- Gross revenues received in calendar year 2012: \$1,908,179.53
- Gross revenues received in calendar year 2013: \$1,586,249.25
- Net revenues received for 2012 Dates of Service: \$1,776,550.90*
- Net revenues received for 2013 Dates of Service: \$1,462,818.54*

* This number is referred to as "Service Revenue" by the current vendor, and appears to be the City's gross revenue minus the current vendor's commissions. EMBA typically defines gross revenues by the total amount of revenue deposited for EMS services during a particular time frame, usually calendar year, and not subtracting our commission. EMBA defines net revenues as gross revenues minus refunds. EMBA was unable to determine the City's net revenues precisely because the current vendor's annual summary reports do not appear to plainly account for refunds issued.

Gross and Net Collection Rates

- Gross collection rate for 2012: 48.41%
- Gross collection rate for 2013: 45.63%
- Net collection rate for 2012: Unable to determine*
- Net collection rate for 2013: Unable to determine*

EMBA uses the following formula to determine the gross collection rate:

- *Gross Revenue / Gross Charges*

This calculation is consistent with the "Rate 1" collection rate, as documented in the "Collection Rates" section of the annual report.

* The current vendor also lists "Rate 2" and "Rate 3" collection rates on their annual report. Because the exact makeup of the column labeled "Adjustments" in the same section of the annual report was not determined, EMBA was unable to confidently identify either Rate 2 or Rate 3 as the net collection rate.

EMBA had additional questions from the annual report:

1. On the 2012 and 2013 annual reports, why are there mandatory adjustments taken for commercial insurance? It is our understanding the City has no reimbursement contracts with commercial insurance companies where a write-off would be required. How do the numbers in the "Adjustments" column affect the overall net collection rate with this payer?



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2. On the 2013 annual report, why are there \$39,942.26 in mandatory adjustments for collections activity? What write-offs are required by law and/or contract in this category?

3. On the 2012 and 2013 annual reports, it appears the current vendor is collecting between 53% and 62% of the net charges to Medicaid. It is our understanding that what charges are left unpaid by Medicaid must be written off. How does the "Adjustments" column in the collection rates section of the annual report affect the overall net collection rate with this payer?

Aggregate Commission Rates

- City's aggregate commission rate for 2012: 6.89%
- City's aggregate commission rate for 2013: 7.78%

The aggregate commission rate is the average commissions paid to the current billing vendor for all three billing phases, which per the contract are:

- Phase 1 is billed at 6.0% of gross revenues
- Phase 2 is billed at 24.0% of gross revenues
- Phase 3 is billed at 33.0% of gross revenues

This information was calculated using the annual reports.

City's Financial Health and Revenue-Enhancement Recommendations

Collection Rates

In the EMS billing industry, using collection rates to judge the effectiveness of billing performance is common. However, the EMS billing industry has its own set of rules and regulations that normally don't apply to other industries. Unlike other industries that expect full payment for a product or service, EMS providers are required by federal and state law to write-off portions of a billed service when billing payers such as Medicare and Medicaid. These write-offs are typically known as "contractual allowances." Therefore, any judgment of billing effectiveness must take into account those mandatory adjustments.

The EMS billing industry typically utilizes two collection rates to judge billing effectiveness: gross collection rate and net collection rate.

Gross Collection Rate

The gross collection rate is a simple calculation of what was charged out and what was collected during a specific time period. In calendar year 2013, the City's gross collection rate was 45.63%, per the current vendor's annual report. In our opinion, that rate by itself does not indicate an adequate or inadequate billing performance. Without considering the mandatory contractual allowances, or write-offs by provider option, it is difficult to state with any certainty that the City's gross collection rate is adequate. Additionally, how much an EMS provider charges for services can drastically affect the gross collection rate. The higher the charges, the more the service must write-off by law; thus a potentially lower gross collection rate.



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Net Collection Rate

The net collection rate is a far better gauge of billing effectiveness because the traditional definition of net collections takes into account contractual allowances, and/or contractual/legal obligations, as well as write-offs authorized by the provider. Perhaps the current vendor has provided that information to the City, but EMBA was unable to account for every adjustment reported, either mandatory or voluntary. This was primarily due to not knowing the meaning of the "Adjustments" column in the collection rates section of the annual reports. It is our understanding requests for clarification were sent to the current vendor on this issue but were not provided. Therefore, we can only report what the current vendor presented as their Rate 2 and Rate 3 collection rates for 2012 and 2013.

Revenue-Per-Billable Run

Another gauge of billing effectiveness is to determine how much revenue was generated for all a provider's billable runs in a particular time period (typically annually), referred to as "Revenue Per Billable Run," (RPBR). RPBR provides an efficient method of gauging how much revenue a provider generates every time an EMS incident is billable. Additional benefits of RPBR are:

- Any increase or decrease in the RPBR from year to year can indicate changes with billing.
- The mandatory and non-mandatory adjustments normally taken during the billing cycle, which can be defined differently by different billing services, are already factored into this calculation. Dividing the billable runs by revenue generated, preferably by date of service, provides straightforward data that is beneficial to the provider as to the actual cost of services provided.

The City's RPBR in 2012 was \$587.13 per run (\$1,908,179.53 in gross revenue / 3250 billable runs).

The City's RPBR in 2013 was \$455.16 per run (\$1,586,249.25 in gross revenue / 3485 billable runs).

The City's RPBR decreased by \$131.97 per billable run between 2012 and 2013, or by 22.5%, while run volume increased by 235 billable runs, or 6.7%, during the same period. Some variables to consider:

- In January 2012, the current vendor posted \$567,364.49 in gross charges which appears to have included 2011 dates of service. The 2012 annual report shows 3250 billable calls for call dates January 1, 2012 – December 31, 2012. If revenue generated in 2012 included 2011 dates of service, the calculation for revenue/billable calls would include too much revenue. Therefore, the City's RPBR in 2012 may have been less than \$587.13 per run, but how much can only be speculated.
- The City charges for both transports and non-transports. Reimbursement on transport services are substantially higher than non-transports. If the number of non-transports was a larger percentage of the City's total calls in 2013 than in 2012, the RPBR would likely decrease. Because this information does not appear readily available on any summary report, obtaining this information would require additional work outside the

City of Manitowoc EMS Revenue/Documentation Review

scope of this review.

- Commercial insurance typically reimburses EMS incidents at a higher rate than Medicare and Medicaid. If the City’s payer mix changed in 2013 to include more Medicare or Medicaid patients, the RPBR may have decreased. However, according to the annual reports, there were only minor changes to the City’s payer mix from 2012 to 2013.

Revenue Collected by Phase

The current vendor’s fee schedule includes three separate phases. They are:

- Phase 1: 6.0% of net revenues
- Phase 2: 24.0% of net revenues
- Phase 3: 33.0% of net revenues

According the current vendor’s annual reports, of the total amount collected, the following amounts were collected in each phase:

Percent Collected by Phase: Phase 1

- 2012: 95.38% of all revenue collected was collected in phase 1
- 2013: 91.81% of all revenue collected was collected in phase 1

By industry standards, these are acceptable collection rates of what was collected in phase 1. These percentages should not be confused with overall gross or net collection rates.

Percent Collected by Phase: Phase 2

- 2012: 3.88% of all revenue collected was collected in phase 2
- 2013: 4.77% of all revenue collected was collected in phase 2

Of note is the collection rate in phase 2 on charges considered in phase 2. In 2012, 29.2% of charges considered in phase 2 were collected. In 2013, 67.4% of charges considered in phase 2 were collected. Since revenues collected in phase 2 are billed at 24.0%, the increase in 2013 may have represented a cost increase to the City.

Percent Collected by Phase: Phase 3

- 2012: 0.74% of all revenue collected was collected in phase 3
- 2013: 3.42% of all revenue collected was collected in phase 3

Similar to the phase 2 collection rate, there was an increase in the phase 3 collection rate for 2013. In 2012, 4.3% of charges considered in phase 3 were collected. In 2013, 14.2% charges considered in phase 3 were collected. Again, this may have represented a cost increase to the City.



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Tax Refund Intercept Program (TRIP)

The current vendor's contract with the City authorizes the current vendor to process claims to the TRIP program. EMBA was unable to identify any data on the current vendor's reports as TRIP-related. Perhaps the current vendor categorizes that data differently. The City should clarify at what rate TRIP accounts are being charged as to ensure the best value to the City, and to ensure TRIP is actually being utilized.

Revenue Performance on Patient Care Reports Reviewed

Using the current vendor's monthly reports, EMBA tracked the readily-available payment history of the 70 patient care reports that were reviewed for documentation compliance. The results were:

- 39 of 70 incidents were paid in full
- 3 of 70 incidents were denied for medical necessity *
- 9 of 70 incidents were denied by insurance for other reasons
- 8 of 70 incidents had unpaid balances and were in phase 2 collections
- 11 of 70 incidents had open balances in phase 1

* The current vendor assigned the adjustment code "A – Not Medically Necessary" to these incidents, per the current vendor's credit (payment) reports. Why each incident was initially denied for this reason was not known to EMBA. Each incident may have been addressed by the current vendor at a later date.

Vital Data Compliance

- 70 of 70 billed accounts had the following vital data elements documented correctly by the current provider, as they were documented on the patient care report:
 - Date of Service
 - Patient Name
 - Incident Number
 - Resident or Non-Resident

Results of Documentation Review

The objective from the EMS documentation portion of our review was to choose a random sampling of seventy (70) of the City's EMS patient care reports from calendar years 2012 and 2013 and review each report for completeness and accuracy in five specific areas:

- Valid HIPAA / Billing Signature
- Sufficient Documentation to Establish Medical Necessity
- Narrative Completeness
- Proper Documentation of Loaded Mileage
- Sufficient Documentation of Procedures and Drugs Provided

City of Manitowoc EMS Revenue/Documentation Review

On an overall basis, an impressive job is being done by the field personnel in obtaining data and signatures. In our opinion, the vast majority of the 70 incidents reviewed by EMBA were completed with sufficient documentation in each category, but one (signatures):

- 55 of 70 had valid HIPAA / Billing Signatures
- 70 of 70 incidents had sufficient documentation to establish medical necessity
- 68 of 70 incidents had complete narratives
- 70 of 70 incidents had proper documentation of loaded mileage
- 68 of 70 incidents had sufficient documentation of procedures and drugs provided

Valid HIPAA / Billing Signatures

- 55 of 70 patient care reports reviewed were documented sufficiently.

The Centers for Medicare and Medicaid Services (CMS) requires ambulance service providers to obtain patient signatures for billing purposes when billing Medicare. If, in the judgment of the EMT the patient is mentally or physically unable to sign, CMS allows an authorized representative to sign on behalf of the patient. And as a last resort, permits the EMT and a representative from the receiving facility to sign on behalf of the patient, with a contemporaneous statement as to why the patient could not sign.

While CMS signature requirements are not mandated by all insurance payers, EMBA recommends our clients adopt a signature policy that mirrors the CMS standards, and apply that policy to all patients, in order to ensure maximum compliance. Using that criteria, we identified 15 incidents that did not fully meet the criteria for a valid billing signature, per CMS standards. Reasons why those incidents did not qualify:

- The EMT did not document a reason why the patient could not mentally or physically sign the signature page when a representative signed for the patient.
- The EMT documented an inadequate reason why the patient could not mentally or physically sign the signature page when a representative signed for the patient.
- The EMT did not obtain printed names of some receiving facility personnel that signed the signature page on behalf of the patient. Signatures must be accompanied by the full printed name.
- The EMT did not identify the type of authorized representative that was signing for the patient. A checklist is provided on the signature page, which was not completed.

Signature compliance is a common challenge for many EMS services we serve, and as stated before, the City's field personnel should be commended for their efforts. Additionally, compliance levels could likely be improved with a re-education on the signature requirements, and moving signatures from paper to the field bridge software. Signature validations can be applied on the field bridge software, prompting the EMT to gather the correct information.

City of Manitowoc EMS Revenue/Documentation Review

EMBA would also like to emphasize the importance of obtaining proper signatures as to not affect the billing process. For example, if signature compliance isn't met at the time of service, the current vendor would have to obtain a signature from the patient before billing some insurances, including Medicare. EMBA was unable to determine with 100% accuracy if billing was affected, because the current vendor's monthly charge reports identify the current insurance and/or payer being sought for payment, not necessarily the primary insurance and/or payer. The current vendor is the best source to provide information if signature compliance is delaying the billing process.

Sufficient Documentation to Establish Medical Necessity

- 70 of 70 patient care reports were documented sufficiently.

Dispatch level, patient complaint and condition at time of dispatch and arrival, signs and symptoms of the patient, and procedures performed are all important data elements for the EMT to document in order to establish medical necessity for an EMS bill. EMTs consistently documented these elements sufficiently in our review.

Narrative Completeness

- 68 of 70 patient care reports were documented sufficiently.

The narrative portion of the patient care report is completed by an EMT that is usually in direct care of the patient. While the format and specificity of narrative writing is subjective, and can differ from EMS Directors and Medical Directors, a complete narrative typically includes as much informational and clinical data as possible as to clearly describe what the EMT(s) viewed and performed during an EMS incident. Of the two incidents we felt had insufficient narratives, the reasons were:

- One narrative lacked sufficient information on patient history, procedures given, and assessments performed. The narrative may have been written by a student, however.
- One narrative lacked information to the degree that the run was billed BLS, but may have been billed ALS with more dispatch and patient data.

We also identified three narratives that appeared to have been auto-generated by the field bridge software, and did not include a free-form narrative. The vast majority of narratives in our sample were free-form narratives. It is recommended EMTs use a standardized method of writing a narrative, as to adhere to the instructions and goals of medical direction.

Proper Documentation of Loaded Mileage

- 70 of 70 patient care reports reviewed were documented sufficiently.



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EMS services are permitted to bill for mileage while the patient is in the ambulance. This is known as “Loaded Mileage.” Billing for mileage when the patient is not in the ambulance is not permitted. In all patient care reports reviewed, sufficient documentation of loaded mileage was provided.

However, while EMTs consistently documented loaded mileage, a few different methods were used in the field bridge software. For example, some EMTs documented multiple mileage points, while some EMTs documented only the ending mileage. This might indicate some EMTs are using the ambulance’s actual odometer readings (preferred), while some EMTs are only using the trip odometer. EMBA recommends documenting the loaded mileage odometer reading when leaving the scene of the incident, and again at receiving facility for the patient, at a minimum.

Sufficient Documentation of Procedures and Drugs Provided

- 68 of 70 patient care reports were documented sufficiently

Accurately documenting procedures performed and services provided by the EMTs is vital for clinical documentation of the incident and for billing and auditing. City EMTs used two different mediums for documentation purposes: a separate billing sheet that the EMTs manually complete, and the field bridge software. These two mediums provided more than adequate documentation compliance.

EMBA identified one incident where we could not find documentation that a cold pack was used, yet one was billed for. EMBA identified one incident where we could not find documentation that aspirin was provided, yet was billed for.

Results of Auto Incident Data

EMBA was asked to review the payment history of sixteen (16) auto incidents with twenty-eight (28) potential invoices (some incidents involved more than one patient):

- 6 of 28 were paid in full
- 6 of 28 were sent to collections with the current vendor
- 2 of 28 are still pending
- 10 of 28 had no charges applied to the incidents
- 4 of 28 were not found in the current vendor’s monthly reports

Summary

The purpose of this review was not for EMBA to offer a conclusion as to the overall effectiveness of the City’s current billing vendor, or offer similar conclusions regarding the City’s EMTs documentation efforts. The incidents reviewed represent a minute portion of the documented 6,735 billable EMS incidents in 2012 and 2013. Regarding the financial portion of our review, EMBA found no evidence to suggest a substandard performance by the City’s



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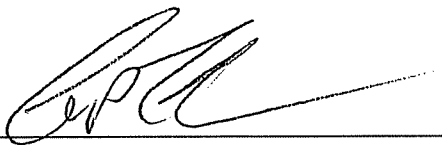
current vendor. The vast majority of work appears to have been performed sufficiently and timely. However, we did identify a few areas of concern:

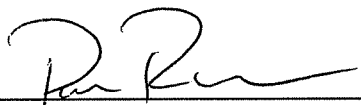
- Not having sections of the annual report clarified did not allow EMBA to fully calculate some vital data.
- Not being able to identify the City's TRIP billings was concerning, especially if the City's TRIP payments are being charged at the current vendor's phase 3 rate. If that is the case, the City could likely find a more competitive rate for those accounts in today's marketplace.
- The decrease in the revenue-per-billable-run from 2012 to 2013.
- The decrease in the Percentage Collected by Phase in Phase 1 from 2012 to 2013, and the increase in the Percentage Collected by Phase in Phase 2 and Phase 3 during the same period.

Regarding the EMS services documentation portion of our review, EMBA recognizes the challenge EMS services have when training large numbers of EMTs to document in similar ways. EMBA therefore would like to commend the management and staff of the Manitowoc Fire Department for meeting or exceeding documentation standards in most areas. As we stated in the review, a refresher course on proper signature compliance based the number of incidents found in the review is recommended. Poor signature compliance can hold up the billing process, and may prove costly to a department in an audit.

Lastly, EMBA recommends the City immediately improve the quality of the attachments that are scanned and ultimately associated with each patient care report. The image quality of the attachments used by EMBA for our review were quite poor, and in some instances impossible to accurately read. If the City destroys the original copies of the signature page, hospital admission sheet, ABN, PCS, or CAD data, EMBA highly recommends the scanned image be as legible as possible, both for billing and auditing purposes. Not having legible documentation can delay the billing process, but not having legible documentation in an audit could prove costly to the City.

We appreciate the opportunity to provide this review to the City of Manitowoc. The City should not hesitate to contact EMBA for any clarification needed of this review.

Prepared by: 
Eric Kiefer

Approved by: 
Paul Rauch