UNIVERSITY OF CALIFORNIA, DAVIS
INTERNAL AUDIT SERVICES

Veterinary Medical Teaching Hospital
Large Animal Clinic
Internal Audit Services Project #14-16

December 2014

Fieldwork Performed by:
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Approved by:
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Background

Large Animal Clinic (LAC) prides itself in servicing their equine and livestock animal clients with the highest quality of care. LAC provides a broad range of advanced medical, surgical, reproductive, and diagnostic services to approximately 8,000 patients a year in the clinic or at the client’s location. The LAC has dedicated facilities and equipment for handling animals of varying sizes from small goat kids to large bulls.

LAC together with the Veterinary Medical Teaching Hospital (VMTH) share extensive and unique specialties compared to outside veterinary hospitals and clinics. As a result, LAC health record, clinical, billing, and inventory management are all supported by an in-house developed Veterinary Medical & Administrative Computer System (VMACS) that has been operating for the past 30 years.

Most of the current LAC cases are equine patients referred by outside veterinarians, so faculty and staff are committed to building strong working relationships with the referring veterinarians. Under this business model, customer satisfaction and experience are especially paramount to LAC success.

LAC equine and livestock stalls were near full capacity before the 2008 economic recession, and historically most of the livestock patients were dairy cows. The economic recession adversely affected LAC when the dairy industry moved away from Northern California to Central California and as the number of equine patients dropped. Total visits decreased 23% (about 2,700) from 12,000 visits in FY 2007 to 9,300 visits in FY 2014. LAC patient caseload has not fully recovered from the economic recession.
LAC has historically incurred average net loss of approximately $1.8 million per year. General funds have been allocated to support the teaching mission in LAC. Beginning in FY 2008, LAC implemented difficult cost saving measures such as staff reductions to control its operating loss in response to business volume drop. The clinics net loss, after an approximate $1.0 million subsidy, was approximately $1.3 million in FY 2014. For more information, see Appendix A.

LAC poses an inherently unique operational risk because the LAC patients can easily weigh over 1,000 pounds. The equine patients vary in levels of animal training and temperament, while the livestock patients are untrained. Proper and safe animal handling by supporting animal technicians plays a key role in a typical LAC patient visit.

**Purpose and Scope**

The objectives of our review were to assess internal controls over accounting and financial reporting, review business process/key operations that are significant contributors to the deficit and identify opportunities to improve economy and efficiency.

To complete our review, we analyzed financial and clinical data, visited and observed operations at LAC, interviewed VMTH personnel and conducted other audit procedures as considered necessary.

Our review encompassed financial and operational data from fiscal year 2008 to fiscal year 2014.

Our review was performed from May through September 2014.

**Conclusion**

LAC is in the difficult position of needing to balance its teaching, patient care and public service obligations with ongoing financial pressures that have necessitated significant cost cutting measures.

Our review has identified opportunities for improvement that may serve to increase revenues, such as more accurate and consistent practices for determining the estimates and collecting deposits for client visits, decreased use of “miscellaneous” charge codes, and better controls over charge capture. While it is difficult to quantify the impact of the latter opportunities for improvement, our testing of charge capture for visits to LAC disclosed the potential for over $400,000 in unbilled charges for FY 2014.

Our review also identified areas of operational risk that must be addressed by the LAC. Client authorizations for medical treatment and drug consultations must be provided and documented on a consistent basis. An appropriate separation of duties between individuals with responsibility for billing and handling client payments must also be maintained.
Lastly, during the course of our review, we noted issues related to increasing employee overtime, employees not taking lunch breaks in violation of California labor laws, and increasing costs associated with employee accidents. We have recommended that LAC undertake an organizational assessment that considers the staffing levels, the organizational structure, business continuity, and operational oversight. We also encourage LAC to continue updating its current safety program, and evaluate the condition of equipment in the livestock area to help ensure employee safety.

Our observations and recommendations are presented in the body of this report along with corresponding management corrective actions.
OBSERVATIONS, RECOMMENDATIONS, AND MANAGEMENT CORRECTIVE ACTIONS

A. Client Authorization for Medical Treatment

Client authorization for medical treatment is not obtained on a consistent basis.

VMTH does not have formal documented hospital policy requiring a signed client authorization for all medical treatment. However, at the June 22, 2012 Chiefs of Service Meeting, the VMTH Director communicated that signed authorization must be obtained for every visit.

Our testing disclosed that clinicians under certain services within LAC did not obtain and/or document the client authorization even after the directive from the VMTH Director. Failure to obtain a signed authorization from the client leaves the LAC more vulnerable in the event of a dispute over treatment or payment. We randomly selected 55 LAC visits from Dec 2013 thru June 2014 and noted 21 instances (38% error rate) where we were unable to obtain record of signed authorization for consent to medical treatment.

We also noted LAC was using the combined Authorization and Estimate paper form that was superseded by VMTH with a more detailed automated form.

Recommendations

1. Establish an internal policy requiring signed client authorization for all visits and services without exception.

2. Re-emphasize the need to obtain a signed client authorization using the correct automated form with the clinicians.

3. Establish an independent review process to ensure all visits and medical treatments are supported by signed client authorization, and consider appropriate enforcement actions for habitual noncompliance, if necessary.

Management Corrective Actions

a. VMTH will establish an internal policy requiring a signed client authorization for all visits and services without exception by April 1, 2015.

b. LAC will re-emphasize the need for obtaining signed client authorization using the correct form with the clinicians by April 1, 2015.

c. LAC will establish a review process to ensure all visits and medical treatments are supported by signed client authorization by April 1, 2015. Enforcement actions for habitual noncompliance will be considered, if necessary.
B. Client Estimate and Deposit

Provision of estimated cost of medical treatment and collecting of related deposits did not occur on a consistent basis.

VMTH does not have formal documented hospital policy requiring a signed estimate for visits that anticipate a charge of $500 or more. At the same Chiefs of Service Meeting referred to in the above section, the VMTH Director discussed requirements of a signed estimate for visits over $500.

We reviewed a sample of 30 inpatient visits with total charges over $500 from January 2014 through June 2014 for records of signed estimates and collection of a deposit equal to at least 50% of the estimate. We identified 13 instances (43% error rate) where a signed estimate and/or deposit were not obtained. The 13 visits ultimately resulted in charges of approximately $40,000.

LAC only obtains signed estimates for inpatient visits over $500, while the Small Animal Clinic (SAC) obtains signed estimates for both outpatient and inpatient visits over $500. Additionally, SAC is more consistent in its practice of establishing estimates and collecting deposits for patient visits. We analyzed data for LAC and SAC related to establishing estimates and collection for FY 2012 through FY 2014. Our analysis suggests a higher frequency in establishing estimates improves the overall collection rate. In FY 2014, SAC initial\(^1\) invoice collection rate was approximately 93% and LAC initial invoice collection rate was approximately 53% for inpatient services. Ultimately, the LAC has a five year average bad debt write-off of approximately 2.5% of revenues, in comparison to the SAC write-off of only approximately 0.5%. While there are likely other factors influencing the LAC versus SAC bad debt write-offs, even a 1% difference in the write-off of LAC inpatient revenues for FY 2014 would have been approximately $37,000.

When LAC does provide an estimate, on average, those initial estimates, according to our sample, are understated. When initial estimates and final visit charges are compared, the SAC average variance is a 15% overstatement while the LAC average variance is 15% understatement. If estimates are not a true reflection of the actual anticipated charges, initial deposit collection may not fairly reflect the true cost of care provided for the patient and clinic’s collection days lag may be unnecessarily extended with risk of non-collection increased.

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\(^1\) The initial invoice collection occurs at the time of service.
Recommendations

1. Establish a written internal policy requiring signed estimates and collection of a 50% deposit for all visits with an anticipated charge of over $1,000 for outpatients and all inpatient hospitalizations before commencement of any clinical procedure.

2. Clarify the signed estimate and collection requirements with the clinicians.

3. Establish an independent review process to ensure visits with total charges of over $1,000 for outpatients and all hospitalized patients will have a reasonable signed estimate, and a deposit of at least 50% of the estimate amount. Consider appropriate enforcement actions for habitual noncompliance if necessary.

Management Corrective Actions

a. VMTH will establish a written internal policy by April 30, 2015, requiring before commencement of any clinical procedure, a signed estimate and collection of a 50% deposit for all visits with anticipated charges of over $1,000 for outpatients and all inpatient hospitalizations.

b. LAC will clarify the signed estimate and collection requirements with clinicians by March 30, 2015.

c. LAC will establish an independent periodic review process to ensure visits with total charges of over $1,000 for outpatients and all hospitalized patients will have a reasonable signed estimate, and a deposit of at least 50% of the estimate amount by April 30, 2015. Enforcement actions for habitual noncompliance will be considered, if necessary.

C. Miscellaneous Charges

The use of miscellaneous charge codes appears to be excessive.

LAC generated a large volume of miscellaneous charges in significant dollar amounts that could be better itemized with more descriptive charge codes. LAC has 30 different codes titled “miscellaneous”. On average, LAC coded about 3,000 charges as “Miscellaneous” totaling approximately $190,000 annually for FY 2012 through FY 2014. Most notably, we identified eight miscellaneous procedures totaling about $43,000 in fiscal year 2014 for which discrete charge code(s) should have been established to more clearly identify the actual services provided and billed.
Keeping miscellaneous charges to a minimum provides better information for oversight and decision making. LAC currently does not have a reporting and monitoring process to keep miscellaneous charges to a minimum. Excessive miscellaneous charges may lead to ineffective charge capture, may obscure required clinical documentation, and may increase the risk of unauthorized discounts.

**Recommendations**

1. Establish a reporting and monitoring process to keep miscellaneous charges to a minimum in dollar amount and charge frequency.

2. Evaluate the results of the reporting and monitoring process to determine if additional changes are needed to the charge master to account for procedures, supplies, drugs and any other cost components due to their frequency and/or significance.

**Management Corrective Actions**

a. LAC will establish a reporting and monitoring process to keep miscellaneous charges to a minimum dollar amount and charge frequency by June 30, 2015.

b. LAC will evaluate the results of the reporting and monitoring process on an annual basis to determine if updates to the charge master are necessary. The first evaluation will take place by June 30, 2015.

**D. Charge Capture**

**Charges were not billed completely and accurately for all procedures performed.**

We randomly selected 60 LAC visits that occurred from January 2014 to June 2014 and asked the LAC Patient Care Assistant Supervisor to review documentation of those visits for completeness and accuracy of charges billed. 40 visits (67%) were identified by the Assistant Supervisor as missing charges, or having charges submitted inaccurately based on related procedures performed and supplies used. The total impact of the inaccurate or missing charges in the sample of 40 visits is approximately $2,800. When this difference is extrapolated to the entire population of approximately 9,300 visits in FY 2014, the impact of inaccurate or missing charges could be as high as $434,000.
We also performed an automated analysis of five specific procedures\(^2\) to identify instances where expected supply and drug charges associated with those triggering procedures were missing. We examined 3,237 visits in FY 2014 where the triggering procedures were performed, and identified 62 visits that appeared to be missing supply and/or drug charges. While an error rate of 2% is not excessive, this test was for a limited number of specific procedures, as opposed to the test above that examined entire invoices and found errors and/or omissions for 67% of the invoices.

Almost all medical procedures must be entered into VMACS manually. Due to high transaction volume and busy workload, animal technicians may not be entering all the charges completely and accurately on a consistent basis.

Additionally, current charge review procedures that should be capturing errors do not appear to be operating effectively. A senior animal health technician and cashier have been assigned to review charge records. However, the senior animal health technician’s time was split with night shift duties, and the cashier may not have adequate clinical experience to make accurate charge review assessments.

Finally, we identified one instance where a clinician unilaterally overrode the animal health technician’s charge without discussion with the Client Services Manager or Patient Care Supervisor and decreased the invoice charge for the medical procedure. LAC personnel also raised anecdotal concerns about pressure from clinicians to reduce or remove charges from client invoices. LAC revenues and financial performance do not directly affect faculty compensation, so clinicians may not have a vested interest in charges that are discounted or eliminated without proper review and approval. Further, VMACS currently allows the editing and/or deletion of charges from an invoice, and does not force the individual making the changes to use a charge code specifically designated for discounts or fee waivers; even though such charge codes exist within VMACS.

**Recommendations**

1. Reevaluate the current process for reviewing charge completeness and accuracy in order to ensure that sufficient knowledgeable personnel are dedicated to the task.

2. Clearly define the process for providing discounts and waivers of charges to all affected personnel in writing, including the use of predefined charge codes specifically for discounts and waivers of charges and required supporting documentation.

\(^2\) The procedures included in our analysis were: 1) Equine MRI, 2) Colic, 3) Euthanasia, 4) Field Service Exam, and 5) Field Service Teeth Float.
3. Assess the feasibility of implementing an automated control within VMACS that restricts the ability to edit and/or delete specific charges once entered by the animal technician without a supervisory approval, in order to ensure consistency with pre-established rates.

4. If the ability to edit and/or delete invoice charges cannot be restricted within VMACS, develop a monthly edit report that tracks invoice charges where the billing rates were edited or the charges deleted, and assign review of that log to a knowledgeable individual not otherwise part of the day-to-day invoice generation and cashiering activity.

**Management Corrective Actions**

a. LAC will reevaluate the current charge review process to ensure sufficient knowledgeable personnel are dedicated to the review by June 30, 2015.

b. LAC will ensure there are clearly defined written policies and procedures governing the provision of discounts and waivers of charges by June 30, 2015.

c. VMTH will assess the feasibility of restricting the ability to edit and/or delete specific charges within VMACS once entered by the animal technician without a supervisory override by June 30, 2015.

d. If the ability to edit and/or delete invoiced charges cannot be restricted within VMACS, VMTH will develop monthly edit reports that track changes to invoices by June 30, 2015, and ensure the report is reviewed by a knowledgeable individual not otherwise part of the day-to-day invoice generation and cashiering activity.

**E. Anesthesia Charge Capture**

The process for charge capture for anesthesia procedure and drug charges could be improved.

Surgeries within the LAC can be broadly grouped based upon the line of service: equine, livestock or field services. Anesthesia related charges are handled differently within those groups.
In the livestock and field services areas, anesthesia procedure charges are fixed charges that are not based on anesthesia duration (i.e., a livestock anesthesia procedure charge could cover a 1-hour long surgery or a 4-hour long surgery). The average FY 2014 anesthesia procedure charge for a livestock surgery was approximately $60, while the average anesthesia procedure charge for a field services surgery was approximately $53. Anesthesia drug charges for livestock and field services are based upon the drug quantity administered. Our review of 20 random case files, ten each from livestock and field services, showed basic clinical records for anesthesia procedures such as start, stop time, and anesthesia duration were not consistently documented in over 70% of the cases. (We were informed that anesthesia duration time has historically not been a consistent part of the clinical documentation for livestock and field services patients.) We also identified three cases where the drug charge quantity was overstated as compared to the clinical documentation, one case where the drug charge was omitted, and one case where a drug charge was not supported by the clinical documentation.

For equine surgeries, the anesthesia procedure charge is based upon the duration of the surgery. The average FY 2014 anesthesia procedure charge for an equine surgery was approximately $274. Anesthesia drug charges that are not bundled with the procedure charge are based upon the drug quantity drawn down for the patient. Our review of a sample of case files for equine surgeries did not disclose any issues related to the anesthesia procedure charges. We were unable to directly tie separate anesthesia drug charges for equine surgeries back to the clinical documentation, because the medical record contained the quantity of drug actually administered to the patient was sometimes different than the quantity drawn down.

As a leading practice, clinical documentation of anesthesia time duration is critical for charge purposes, because the anesthesia procedure charge is usually based upon drip-time. The difference in the average procedure charge for livestock and field services versus equine surgeries suggests that time based anesthesia procedure charges may enhance revenue in this area. Documentation of anesthesia time duration can also provide clinical assessment value because longer anesthesia duration can increase medical complications such as temporary mental confusion, lung infection, heart attack, stroke, or death.

**Recommendations**

1. Assess whether anesthesia start and end times need to be recorded and documented for all anesthesia procedures in the interest of clinical documentation consistency.

2. Assess whether additional anesthesia charge codes should be established to facilitate incremental anesthesia time charging for livestock surgeries and field service surgeries in the interest of charge consistency.
3. Assess whether separate anesthesia drug charges by quantity administered should be replaced by time-based charging as a bundled component of overall anesthesia procedure charge.

4. If separate anesthesia drug charges are not bundled, assess whether clear anesthesia drug quantity administered and drug quantity drawdown needs to be consistently documented so it supports anesthesia drug quantity charge in the interest of charge consistency.

5. Assess the feasibility of establishing a more effective monitoring process of anesthesia procedure charges and drug charges.

**Management Corrective Actions**

a. LAC will assess whether anesthesia start and end times need to be recorded and documented for all anesthesia procedures by April 30, 2015.

b. LAC will assess whether additional anesthesia charge codes should be established to facilitate incremental anesthesia time charging for livestock surgeries and field service surgeries by April 30, 2015.

c. LAC will assess whether anesthesia drug charges by quantity administered should be replaced by time-based charging as bundled component of overall anesthesia procedure charge by April 30, 2015.

d. If separate anesthesia drug charges are not bundled, LAC will assess whether clear anesthesia drug quantity administered and drug quantity drawdown needs to be consistently documented so it supports anesthesia drug quantity charge in a more efficient manner by April 30, 2015.

e. LAC will assess the feasibility of establishing a more effective monitoring process of anesthesia procedure charges and drug charges by April 30, 2015.

**F. Clinic Separation of Duties**

*Incompatible charge entry and collection duties were being performed by the same individuals.*

The LAC Cashier and Financial Coordinator were performing incompatible charge entry and collection duties. The Cashier had the ability to create and edit charges on client invoices, review charge completeness on client invoices, and also collect all forms of payments on client invoices. The Financial Coordinator served as a backup for the cashier, so she was also performing incompatible duties when the cashier was not in the office. Incompatible duties within the revenue cycle increase the risk that errors or inappropriate activities can occur and go undetected.
UCD Policy and Procedure Manual (PPM) 330-11, “Departmental Financial Administrative Controls and Separation of Duties” establishes that departmental financial administrative duties shall be separated so that one person’s work routinely serves as a complementary check on another’s work, and no one person has complete control of a financial transaction.

**Recommendations**

1. Review and revise the Cashier and Financial Coordinator responsibilities to ensure proper separation of duties.

**Management Corrective Actions**

a. LAC will review and revise the Cashier and the Financial Coordinator duties to ensure proper separation of duties by April 30, 2015.

**G. Drug Consultation**

**Clinical documentation process for drug consultation could be improved.**

VMTH does not have a formal hospital policy regarding required communication of prescribed drug consultations to clients for all visits. Clinicians are supposed to communicate discharge instructions (with a drug consultation) to clients at the time of discharge. While VMTH administration expressed the expectation that discharge instructions would contain notations indicating a drug consultation had taken place, recordkeeping of client signed acknowledgement of discharge instruction was not consistently maintained and we did not find clear clinical documentation that client waived the discharge instruction.

For human medicine, California pharmacy regulations require pharmacies to maintain patient medication profiles and counsel patients regarding their prescription medication before dispensing. Consultation provides the pharmacist with the opportunity to educate patients who present new prescriptions and protect them from potential problems associated with a new medication by discussing possible side effects, contraindications and the importance of following directions. Consultation also provides the pharmacist one more opportunity to prevent dispensing errors by inspecting the contents of the medication container to assure that the proper drug is dispensed.

The VMTH Director of Pharmacy is an active licensed pharmacist for human medicine in the State of California so her professional standard requires a drug consultation to be provided at the time of dispense to human patients. Failure to provide consultation for prescribed drugs may jeopardize the Director of Pharmacy’s professional license.
Recommendations

1. Establish a review process to ensure visits are completed with a record of signed discharge instruction from the client.

Management Corrective Actions

a. LAC will establish a review process to ensure visits are completed with a record of signed discharge instruction from the client by June 30, 2015.

H. LAC Organization

An organization assessment should be performed by the LAC.

Increasing overtime and failure of staff to take lunch breaks indicates the need for an organization assessment by the LAC. Overtime pay and overtime hours at the LAC have trended upward between FY 2012 and FY 2014. Between January and July 2014, there was an average of 116 instances per month of employees who noted on their timecards that they did not take a lunch break. We reviewed a random sample of 30 employees who had indicated no lunch break and found that all of them had worked over six hours, which makes the failure to have a lunch period a violation of California Labor Law\(^3\).

Staff and supervisors within LAC cited staff cutbacks over the past few years as the primary reason for the overtime and the failure to take lunch breaks. Some LAC personnel have also pointed to an increasing rate of employee injuries as staffing levels decreased. Our review of the LAC animal technician staffing trends disclosed that the staff headcount has decreased by 33% (29 employees) since 2007. Additionally, over the past seven years, five supervisor positions have been discontinued in the LAC. We also confirmed a rising trend in the number and cost of workers compensation cases between FY 2012 and FY 2014, from 19 cases to 24 cases and $13,000 to $49,000, respectively.

While VMTH administration acknowledges that staffing cuts have been necessary in order to help address the budgetary challenges facing VMTH, administration asserts that the failure to properly utilize staff within LAC is the primary cause of the issues noted. VMTH administration believes that a greater level of coordination within the LAC to deploy staff where they are needed throughout the LAC would help reduce the need for overtime, skipping lunches and instances where established safety protocols are not adhered to.

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\(^3\) CA Labor Code Section 512 establishes that an employer may not employ an employee for a work period of more than five hours per day without providing the employee with a meal period of not less than 30 minutes, except that if the total work period per day of the employee is no more than six hours.
Recommendations

1. Undertake an organization assessment of the LAC that considers the staffing levels, the organizational structure, business needs, business continuity and operational oversight.

2. Immediately take steps to ensure employees are taking their required lunch breaks in order to comply with California Labor Law.

3. Review and update current LAC safety training program as needed.

Management Corrective Actions

a. VMTH will perform an organization assessment of the LAC. This assessment will include review of VMTH staffing levels and the organizational structure necessary to ensure efficient and effective utilization of LAC staff to meet the business needs of the unit. The organization assessment will be completed by September 30, 2015.

b. VMTH has begun monitoring employee lunch breaks on a monthly basis. While client service needs may on occasion justify a missed lunch period, failure to take lunch breaks on an ongoing basis will be grounds for disciplinary action.

c. VMTH will review and update the LAC safety training program as needed.

I. Livestock Animal Equipment

Old and deteriorating equipment may pose an increased risk to patient and employee safety.

We conducted a physical observation of C-Barn (livestock animal section) and noted some of the key heavy metal equipment used for large animal restraint was rusted, wrapped in duct tape and it was reported to IAS that supporting bolts have snapped repeatedly while large animals were under restraint. Additionally, it was reported to IAS that the metal gates built to guide the beef cattle through are too wide, which gives the bulls room to charge within the gate, damaging the gate and potentially causing injury to the animal technician guiding the bulls in the gates. Finally, current bleach-based sterilization technique may be too corrosive and accelerate the deterioration of vital heavy metal equipment in livestock medicine.

Injuries to both VMTH residents and animal technicians have occurred in the past due in part to the equipment issues within C-Barn. California labor regulation requires all employers to provide workplaces that are safe and healthful.
Recommendations

1. Assess the state of current equipment (including the gates) in livestock medicine to ensure it facilitates reasonable safe working conditions for the staff and take necessary actions to replace deteriorating equipment, if necessary.

2. Review current sterilization procedures for the livestock metal chutes, and determine whether less corrosive methods can be utilized.

Management Corrective Actions

a. LAC will carefully assess the state of current equipment in livestock medicine, including the animal gates, to ensure it facilitates a reasonably safe working environment for LAC personnel, and take necessary actions to replace deteriorating equipment, if necessary, by June 30, 2015.

b. LAC will review current sterilization procedures for the livestock metal chutes to determine if less corrosive methods can be utilized by April 1, 2015. As of the present time, LAC has made the decision to convert to Accel, a less corrosive sterilizing method.

J. Owner Handling of Large Animals

Owners handling large animals pose increased legal risk and exposure for the University.

Some owners are handling their large animal during clinical treatment at LAC. Currently, there is no formal waiver documentation process for potential animal injury sustained by the owner during clinical treatment administered within LAC. The University may be subject to unnecessary liability if an owner sustained an injury while handling their animal on the LAC premises. In the interest of mitigating costly business liability, owners handling their large animals during clinical treatment should always be discouraged, if not prohibited.

Recommendation

1. Assess the risks versus benefits of allowing owners to handle their own animals while being treated at LAC. If it is determined that owners should be allowed to handle their own animals, consult with Campus Counsel regarding the need for a formal waiver of liability from clients who do handle their own animals.
Management Corrective Actions

a. LAC will assess the risks versus benefits of allowing owners to handle their own animals by June 30, 2015.

b. If it is determined that owners will be allowed to handle their own animals, VMTH will consult with Campus Counsel regarding the need for a formal waiver of liability and develop any necessary documents by June 30, 2015.

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Appendix A

### Large Animal Clinic Net Loss Summary

<table>
<thead>
<tr>
<th></th>
<th>FY 2012</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY12 - FY13</th>
<th>FY13 - FY14</th>
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</thead>
<tbody>
<tr>
<td><strong>REVENUES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net service revenue</td>
<td>$2,511,865</td>
<td>$2,648,587</td>
<td>$2,907,524</td>
<td>$136,722</td>
<td>$258,936</td>
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<td>Downsteam revenue</td>
<td>2,512,640</td>
<td>2,499,275</td>
<td>2,323,800</td>
<td>(13,364)</td>
<td>(175,475)</td>
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<td><strong>Subtotal: Revenues</strong></td>
<td>5,024,505</td>
<td>5,147,863</td>
<td>5,231,324</td>
<td>123,358</td>
<td>83,461</td>
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<td><strong>EXPENSES</strong></td>
<td></td>
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<td>Salaries and Benefits:</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Staff salaries &amp; benefits</td>
<td>2,459,623</td>
<td>1,839,067</td>
<td>2,240,881</td>
<td>(620,557)</td>
<td>401,815</td>
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<td>Faculty salaries &amp; benefits</td>
<td>693,089</td>
<td>757,195</td>
<td>847,142</td>
<td>64,105</td>
<td>89,948</td>
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<td>Resident salaries &amp; benefits</td>
<td>513,265</td>
<td>459,911</td>
<td>545,679</td>
<td>(53,354)</td>
<td>85,769</td>
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<td><strong>Subtotal: Salaries and Benefits</strong></td>
<td>3,665,977</td>
<td>3,056,172</td>
<td>3,633,703</td>
<td>(609,805)</td>
<td>577,531</td>
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<td>Other Expenses:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td>Downstream services</td>
<td>2,551,606</td>
<td>2,523,921</td>
<td>2,439,623</td>
<td>(27,684)</td>
<td>(84,299)</td>
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<td>Service supplies &amp; expenses</td>
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<td>570,961</td>
<td>729,738</td>
<td>62,272</td>
<td>158,777</td>
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<td>Administrative overhead</td>
<td>557,540</td>
<td>612,196</td>
<td>665,892</td>
<td>54,655</td>
<td>53,697</td>
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<td>Depreciation</td>
<td>100,000</td>
<td>-</td>
<td>35,900</td>
<td>(100,000)</td>
<td>35,900</td>
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<td>Travel</td>
<td>1,167</td>
<td>1,604</td>
<td>3,146</td>
<td>437</td>
<td>1,542</td>
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<td>Equipment &amp; renovations</td>
<td>19,927</td>
<td>-</td>
<td>-</td>
<td>(19,927)</td>
<td>-</td>
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<td><strong>Subtotal: Other Expenses</strong></td>
<td>3,738,929</td>
<td>3,708,682</td>
<td>3,874,299</td>
<td>(30,247)</td>
<td>165,617</td>
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<td>Net Loss Before Subsidy</td>
<td>(2,380,401)</td>
<td>(1,616,991)</td>
<td>(2,276,678)</td>
<td>763,410</td>
<td>(659,687)</td>
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<td>Subsidy</td>
<td>1,421,988</td>
<td>873,379</td>
<td>993,027</td>
<td>(548,609)</td>
<td>119,648</td>
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<tr>
<td><strong>Net Loss</strong></td>
<td>$ (958,414)</td>
<td>$ (743,612)</td>
<td>$ (1,283,651)</td>
<td>$ 214,802</td>
<td>$ (540,039)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FY 2012</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY12 - FY13</th>
<th>FY13 - FY14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Loss Margin (before Subsidy)</strong></td>
<td>-47%</td>
<td>-31%</td>
<td>-44%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net Loss Margin</strong></td>
<td>-19%</td>
<td>-14%</td>
<td>-25%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

4 Downstream revenues and expenses comprised of activities from supporting specialty service lines that are shared between LAC and SAC.
## Appendix B

### Large Animal Clinic Net Income (Loss) By Lines of Service

<table>
<thead>
<tr>
<th>Service</th>
<th>Fiscal Year 2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA ICU</td>
<td>$ (693,140)</td>
<td>$ (328,015)</td>
<td>$ (431,765)</td>
</tr>
<tr>
<td>LA Anesthesia</td>
<td>$ (186,902)</td>
<td>$ (167,830)</td>
<td>$ (232,209)</td>
</tr>
<tr>
<td>Livestock Medicine</td>
<td>$ (163,680)</td>
<td>$ (165,386)</td>
<td>$ (255,819)</td>
</tr>
<tr>
<td>Equine Medicine (IH)</td>
<td>$ (131,312)</td>
<td>$ (95,845)</td>
<td>$ (176,089)</td>
</tr>
<tr>
<td>Livestock Reproduction/Herd Health</td>
<td>$ (114,082)</td>
<td>$ (72,192)</td>
<td>$ (93,211)</td>
</tr>
<tr>
<td>Equine Reproduction</td>
<td>$ (39,462)</td>
<td>$ (6,082)</td>
<td>$ (83,617)</td>
</tr>
<tr>
<td>Farrier</td>
<td>$ (23,562)</td>
<td>$ (11,408)</td>
<td>$ (19,890)</td>
</tr>
<tr>
<td>Equine Surgery</td>
<td>$ 190,190</td>
<td>$ (52,215)</td>
<td>$ (186,584)</td>
</tr>
<tr>
<td>Equine Preventative Care Pkg</td>
<td>$ (323)</td>
<td>$ (454)</td>
<td>$ -</td>
</tr>
<tr>
<td>State Fair</td>
<td>$ 7,333</td>
<td>$ 11,964</td>
<td>$ 12,004</td>
</tr>
<tr>
<td>LA Isolation</td>
<td>$ 59,522</td>
<td>$ (4,804)</td>
<td>$ (17,183)</td>
</tr>
<tr>
<td>Equine Medicine (FS)</td>
<td>$ 137,005</td>
<td>$ 148,657</td>
<td>$ 200,713</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$ (958,414)</strong></td>
<td><strong>$ (743,612)</strong></td>
<td><strong>$ (1,283,651)</strong></td>
</tr>
</tbody>
</table>