Starting out with Whisper®
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Hospital
The most frequent question asked when first utilizing the diagnostic information provided by Whisper is; “I have a rectal temperature of ‘X’ and a lung score of ‘Y’, how do I treat this animal?” The introduction of Whisper has created a new set of observations and data, which previously was not available. In the past one only had the rectal temperature and clinical observations as a guide or determinant for treatment protocol decisions.

1st Things 1st
The economic advantages provided by Whisper (reduced mortality, lowering of treatment cost, increased performance, etc.) do not start in the hospital per se, but rather begin with the pen riders. The pen riders determine which animals are pulled for the hospital visit and thus the ultimate impact and success of any treatment program can only be as good as the animals selected.
In answering the question “what did Whisper help you do differently?” A key response from some feedlot consultants has been, “it changed the way we pulled cattle.” Whisper helped the veterinarians and animal caregivers evaluate the cattle in a somewhat new and different manner. This potentially significant improvement was achieved and reinforced by the faithful examination and review of the previous days Whisper lung score report.

The two graphs above represent the cumulative cattle lung scores for animals pulled the previous day at different locations. (These charts are provided each morning and can be retrieved from http://reports.whisperscore.com or are available via a daily email accessible by cell phone.) Note the difference in the percentage of Whisper lung score 1’s between these two operations. The group on the left (Feedlot A) has approximately 10% LS 1’s in the cattle pulled vs. the group on the right (Feedlot B) which has approximately 60% LS 1’s.

So which of these two operations did the best job in identifying and pulling sick cattle? That question is better framed if we ask that question in regards to BRD. Both feedlots could be exactly correct regarding the identification of “sick” cattle, however in regards to the specific identification of cattle with BRD, both may be lacking. “Sick” does not necessarily mean the animal has BRD.

According to national averages, 75% of illness (morbidity) in the feedlot is caused by BRD. The remaining 25% of overall morbidity is caused by other conditions with G.I. disturbances (e.g. acidosis) coming in behind BRD at #2. While this 75/25 ratio is an industry wide measurement and subject to wide variation, it still provides a rough guide by which to begin evaluation of the quality of our hospital pull selections. If 25% of cattle illness is non-BRD then in a perfect world one would expect to have 25% of the cattle be LS “1’s.

Feedlot “A” above may be doing an excellent job in regards to pull selection, however there is room to ask the question, “are they pulling ‘deep’ enough”. Feedlot “B” is at the opposite end of the discussion. With 60% of the LS a “1”, the first consideration would be that they pulled way too deep in regards to BRD. However, if the cattle are truly sick, consideration needs to be given that a non-BRD cause of illness is at hand. A differential diagnosis at this point would have digestive conditions at the top of the list. To treat these 60% 1’s with BRD antibiotics may be a waste of medicine/money and additionally a waste of critical time in getting them accurately diagnosed. A 3rd possible situation for Feedlot “B” would be the pen riders are in need of more experience and/or guidance.

The graph depicting Feedlot “C” (above) represents the Whisper 1st pull recordings from 12,677 animals at approximately 29 feedlots. It is estimated that a total of approximately 42 different
Whisper operators contributed to these recordings. Feedlot “C” thus represents a large number of cattle, from a large number of feedlots with Whisper LS recorded by a large number of people.

It is from the high number of inputs comprising the data in Feedlot “C” that one could begin to consider this a benchmark or standard by which to evaluate other hospital Whisper LS profiles (e.g. Feedlot A & B). The 25% 1’s represents an average across feedlots/operators and additionally correlates to the BRD morbidity studies noted above. It is with all of the above in mind that we can use the 25% LS 1’s value as a guide by which to evaluate the quality of our hospital pulls. Again it must be noted that the 25% “1” LS figure is an estimate and populations of cattle may vary greatly. However, in consideration that we have no current and objective “real time” way to evaluate the cattle pulled for treatment, Whisper provides a huge leap forward in the improvement of case definitions (diagnosis) and the treatment decisions that follow.

“Courage in Treatment Decisions”

No one involved in the treatment of feedlot cattle want “deads” showing up in cattle under their care and supervision. Additionally, add in the high prices of feeder cattle today and we now can more clearly understand why potentially heavy and persistent antibiotic usage is the norm in many locations. Recent studies and evaluation of feedlot data indicate that not only is antibiotic (AIF) usage greatly increasing on a per animal basis, but death loss itself is increasing in feedyards across the country. We have the most advanced biologicals (vaccines) and AIF’s ever available, yet death loss is significantly rising. Somehow we are going backwards.

Many feedlot BRD treatment protocols do not institute AIF treatment until the rectal temperature has reached 104.5°. This paper does not allow for a full discussion of value and correlation of rectal temperature to BRD, however it is important to note that rectal temperature correlates poorly overall with a BRD diagnosis.

One significant comment from a feedlot veterinarian utilizing Whisper was that it gave them the courage to treat cattle regardless of rectal temperature. For example, cattle with LS of “2” had previously not been treated until the temperature caught up with the LS. By initiating treatment earlier on LS 2’s (minus a rectal temperature breakpoint) it was felt that their BRD treatment success rate greatly improved. Additionally, these early LS cattle were found to respond favorably to older and lower cost AIF’s such as LA 200. It is important to remember that results will vary depending upon the situation and other variables; however treating BRD cattle earlier in the progression of the disease has always provided better results vs. later treatments.

“Courage” in treatment decisions has also been observed at the other end of the Whisper LS scale. LS “5”s present a conundrum, as they are at an extreme level of risk of dying. LS 5’s are 200% more likely to die than LS 2’s. “Courage” in this instance has been shown by possibly forgoing AIF treatment (based on past treatment history, if known) and turning these animals out on pasture or into some other type of low stress environment and TLC nutrition plan. “Treatment courage” in a nutshell is using more sensitive and specific diagnostic information to make new, unique, and hopefully more successful treatment protocol decisions.

“What’s the Recipe?”

To date my most frequent Whisper question has been: “OK, I’ve got a LS “X” and a rectal temp. “Y”, “how do I treat this animal?” or “what antibiotic do I use?” My typical answer to this question is “I don’t know”. The reason I answer this way is because I am not familiar with the past history at this operation. What is the risk assessment on the cattle? Where did they come from? What has or has not worked on similar cattle in the past? Are they put together sale barn cattle or are they single source, ranch fresh calves? Is it April or December? How long was their transport? Have they been treated before? Were they mass treated on arrival, etc., etc.?
My recommendation in getting started with Whisper is to start with your standard feedyard therapy on the LS 2-4’s. Lung score 1’s are not yet demonstrating any lung involvement and 5’s are in a critical situation. What is essential is to record the animal ID, rectal temperature, treatment and LS. All of which can be entered into the Whisper computer, uploaded into the cloud and thus easily retrievable for review. What is possibly more important than the initial treatment itself is to keep track of your specific treatment responses. If the treated animal recovers and does not return to the hospital, that 1st treatment success SOP is important to note and to record the LS and temp preceding treatment. If the animal is re-pulled and returns to the hospital, the previously recorded LS, rectal temperature and other history now become very important. For example, if the animal on first pull had LS of “3” and today has a LS “2”, that would indicate the selected therapy is working and lung function improving. Additional therapy or different antibiotics are likely unnecessary. If, on the other hand, the original LS was “3” and now is “4” or higher, it is clear that the therapy is not working and the animal needs to be seriously re-evaluated.

As one “keeps score” and compiles good records regarding treatment and retreatment success, over time a pattern emerges regarding which treatment protocol works best in various health parameter situations. The more accurate our diagnostic tools become, the more accurate, effective and hopefully economical our treatment. Whisper is especially useful in the evaluation of treatment progression and success with the long duration antibiotics such as Draxxin (14 days). If you follow up behind these long acting products and see that the LS is improving, additional add on antibiotic therapy should not necessary. This greatly reduces treatment costs, demonstrates judicious usage of antibiotics, and should assist in better utilization of labor.

“You can’t manage what you don’t know”
The capabilities that are part and parcel to the Whisper computer assisted stethoscope lend themselves to easy record keeping and retrieval. When Whisper data and recordings are uploaded to the cloud, the data becomes readily available. Upon your initiation with Whisper, please provide your email address to your representative. Early each morning the previous days Whisper scores are tabulated for your review. What adds to the convenience is the information can come right to your cell phone and can easily be viewed by any or all on your team.

A more detailed and historical perspective on your Whisper data is available online at http://reports.whisperscore.com. (Table 1) Upon securing your ID and password, one can easily review any Whisper evaluations, complete with a thumbnail view of the Whisper audiogram as seen above. A search feature allows you to select any number of variables and dates, which the computer can readily retrieve and organize. An example of a search might be to identify all of the Whisper LS 2-4’s from yesterday along with the individual animal ID’s. That particular inquiry is demonstrated in the short Whisper report search found on the previous page.
Table 1

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**Summary**

Whisper is a game changing feedlot diagnostic tool that can dramatically increase the accuracy of BRD diagnosis. The result of this improvement in accuracy results in a dramatic reduction in feedlot mortality. This same improvement in diagnostic accuracy results in more targeted and effective treatments that serve to lower overall medicine cost and improve animal care. While the utilization of Whisper is not difficult, it does require attention to several details to insure that the full economic and health benefits can be realized. We hope this brief overview helps you better understand and get a “leg up” with your Whisper experience. As always, the team at Micro Technologies and Geissler Corporation are available to assist in your success.

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1. Edwards, 1996; Smith, 1998
2. Walter, Shawn; PCE Newsletter #500, March 27, 2015; S. Torres, KSIU, 2013; Babcock et al., 2006; Loneragan et al., 2001.)