Diabetes Audit Training 2016
RPMS/DMS Taxonomies

Karen L. Mundy, BS, MT (ASCP)
Cimarron Medical Informatics, LLC

Karen Mundy:

This is Karen Mundy with Cimarron Medical Informatics and I am a member of the 2016 Diabetes Audit team, along with other members of the OIT, Division of Diabetes Treatment and Prevention.

For this recording, we are going to be discussing how to prepare for the 2016 Diabetes Audit with the topic being, "How to update your diabetes taxonomies." What a taxonomy is, is simply a group of related items. These taxonomies are used by or in the logic for the several elements of the 2016 audit.

The majority of these taxonomies are already populated when they are installed onto your system. However, there are a few taxonomies that should be reviewed and updated locally at your facility. This would be the medication taxonomies, the laboratory test taxonomies, and the patient education taxonomies. You may wonder why you need to update these annually and that would be because there may be new medications coming out on the market that you'll begin to use during this audit year that you had not used previously.

New laboratory tests are always coming out for testing the various elements of the audit. The patient education topics don't generally change as much as they may have in the past, but you still want to make sure that if your providers are using a different patient education topic than what they have used in the past, you want to make sure that you are capturing those into your taxonomy.

The first thing to do when you are preparing for your audit is to assemble your resources. You want to pull down your audit 2016 instructions, the 2016 Form, and the addendum to the user manual for the latest patch which is Patch 9, which is due to be released the end of January or early February. These are all available on the IHS website.

Here is the addendum. It will say, "Version 2, Patch 9." When you pull this down and look at your table of contents, this is an Adobe document. You can go right to the section on how to update your taxonomies. Just simply click on the page number and it will take you to that particular section and explain how to update your taxonomies and what should be populated in those taxonomies.

For the medication taxonomies, they are mostly the same as they were last year, for the 2015 audit, but I do want to note that there is a taxonomy for medication that's supposed to be BGP PQA STATIN MEDS that is actually pre-populated with all the NDCs. So, this particular taxonomy does not need to be locally reviewed or updated.

The other change is that the old DM AUDIT ANTI-PLATELET DRUG taxonomy has now been renamed to the DM AUDIT ANTIPLT/ANTICOAG RX taxonomy. There are two taxonomies that are highlighted in red on this screen, DM AUDIT GLP-1 ANALOG DRUGS and the DM AUDIT INCRETIN MEMETIC DRUG taxonomy. When these are looked at by the logic in the audit, they display together on the audit as the GLP-1 meds.

All of these taxonomies should be reviewed with the assistance of your pharmacist or your providers that are prescribing these medications to make sure that you are capturing all the medications in the appropriate taxonomy. Not all of these taxonomies will have something populated in them if your providers do not prescribe them.

You'll notice here too, when we're looking at our taxonomies, that some may be prefaced with a BGP, others with DM Audit. The reason for that is that the GPRA or the CRS application also uses taxonomies. There is an effort to try to combine the use of the taxonomies, so you'll see some that were created for GPRA will have the acronym of BGP in the namespace, the others are ones that were made for the DM Audit.

For education taxonomies, there are only three that need to be populated, the DM Audit Diet Education, the DM Audit Exercise, and the DM Audit Other Education. It's pretty self-explanatory that we're going to capture all patient education that has to do with diet education in the DM Audit Taxonomy. Any of the patient education topics that have to do with exercise would be in the DM Audit Exercise. Any other diabetes-related education topic that you are using in your facility should be in the DM Audit Other Education.

They've done quite a bit of updating on these education topics taxonomies in order to be able to include SNOMED codes as well, so you may not need to dwell too much on your education taxonomies unless you see that you are deficient when you look at your audit. You might want to then double check to make sure that you are capturing all of the education topics that are being used by your providers.

So, you'll note here you might want to review the logic in the Appendix A of the Addendum for patch 9, because many topics will be automatically picked up because of the prefix that they are named or the ICD-9 or the ICD-10 code, or the SNOMED Code pertaining to diabetes, or a suffix of –N, -EX, or -MNT.

For the laboratory test taxonomies, there has been no change. However, I do want to point out that there are three taxonomies that are populated not for diabetes care specifically, but in order to capture those tests that are to be used for our statin element to see if the patient needs to be included if those tests have been performed. So, the DM AUDIT ALT, the AST, and the Creatine Kinase taxonomies are not laboratory elements per se for the audit, but however, are used in order to determine the statin element.

There is a report on the Diabetes Management System Reports Menu called LMR and this is to assist with determining what drugs are prescribed or what labs are performed in your facility. The menu flow would be going from your diabetes management system to RP for reports and then LMR. You want to run this report for your medications for the six-month date range starting six months prior to the end of your audit period.

So, for example, for medications, you're going to want to look from July of 2015 to the end of December 2015. The reason for that is that the logic looks at the last six months that medications were prescribed with the exception of aspirin. For aspirin, we do look for an entire year.

For the laboratory test, you're going to want to run it for the entire audit date range. So, for 2016, you're going to want to run it from January 1, 2015 to December 31, 2015. We'll be looking at examples of these in a moment.

Then, you'll need to update your taxonomies. If you find medications that are being used that are not in a taxonomy, you're going to want to update them. You can do that both in the roll and scroll RPMS, starting with the DMS application to the diabetes audit menu, to the diabetes audit 16 and then to update the 2016 taxonomies.

With the visual DMS, it's pretty much the same flow. You're going to go to your Diabetes QA Audit, to the 2016 Audit to update and review the taxonomies for 2016. In iCare, there is also an option to update your taxonomies.

There is a new option available with the 2016 audit that will permit you to view what is already in your taxonomies. So you can look at them that way as opposed to having to go into Update to see what's there. It will list all the taxonomies that are used for the 2016 Audit, and then it allows you to display those components. There is also a new option VSML on the DM16 Menu. This allows you to look at what SNOMED codes are looked at in the DM audit and what the contents or what codes are actually in each one of those lists.

So now, what we're going to do is we are going to log in to a demo database. When you log into RPMS, you are going to be viewing your primary menu that you've been assigned. And for DMS, I've seen a variety of acronyms given to DMS. On this particular database it is BDM. That happens to be the name space for the Diabetes Management System. Some systems may have just DM for Diabetes Management, and some may have DMS. But all of them should have the same name of Diabetes Management System.

I'm going to go in to BDM. The first thing that you'll see is a selection of registers that you may be authorized to use. Many of you may only have IHS Diabetes which was the primary diabetes register that was installed many years ago or you may have diabetes registers for certain members of your population. Perhaps, divided up by community of residence or maybe you have them divided up by case managers or providers. For this particular exercise, I'm going to go ahead and use the IHS Diabetes Register.

In order to view your taxonomies, you need to go into DA, the Diabetes QA Audit Menu. You'll see here that we have a list of several diabetes program audits for past years. Also, we have an option to display the Audit Logic. So that may help you to determine what might be missing, what you may be lacking as far as components of a taxonomy, if you're delinquent in a certain element of the audit.

I'm going to pull up DAL to display Audit Logic. The first thing you're going to be prompted for is the year of the audit. Then, what's displayed here are simply all of the elements for the 2016 Audit. This will allow you to go ahead and look at a particular element to see how it is determined whether your patient meets that audit element or not.

So for example, if I want to look at dental exam, I'm going to go ahead and press S to select my item, and then 21 to look at my dental exam logic. And then what I will see here is the logic that is used by the audit to determine whether your patient meets this audit element or not. For this example, the first place it looks is for a Dental Exam with a code of 30. If it doesn't find a dental exam being done, then it's going to look for a visit that occurred in the Dental clinic, 56. If it doesn't find one there, then it's going to look for a visit by a provider who is a dentist, a provider class code of 52. Then lastly, it's going to look for a CPT code from the DM Audit Dental Exam CPT Taxonomy. This is a new taxonomy for this year that we are looking at Dental CPT Codes. If it doesn't find any of these, if there's no hit on any one of these numbers, then you'll be assigned a "no" that your patient did not meet these criteria.

If we look at, let's say, a laboratory test. Let's look at the serum creatinine, number 42. So, here we have the logic for the serum creatinine. It's going to look to see that it is first, perhaps a member of a DM Audit Creatinine Taxonomy, which is what we would be populating locally with your creatinine tests that are performed or whether it is in the BGP Creatinine LOINC Codes Taxonomy. So now, we are starting to look at LOINC codes as well. A LOINC code is a standard code that is assigned to a laboratory test across the board, no matter how that test is named in your laboratory package. If it's a serum creatinine, it will have a certain LOINC code.

Then there is additional information as to how we're reporting this, whether it is an individual audit, a cumulative audit or an audit export file. So you can find all of this information by looking at DAL for your logic. But to update your taxonomies, you're going to pick your particular audit year. As I mentioned, there are two new options here, VTAX to view, print any DM Audit Taxonomy, then VSML to look at the SNOMED list. Let's look at those real quickly.

If you want to see what is contained in any of your taxonomies, and these are all of the taxonomies. Again, not all of these need to be populated by you. But if you want to see what's in them, then all you do is select your taxonomy by the number, and we'll look at the creatine kinase and browse it to the screen. So this is a good example to see. All of these tests are creatine kinase tests, but they're all named just a slight bit differently. So you want to work with your laboratory folks and/or look at the LMR to try to find those CK tests that need to be on your taxonomy. Some might be empty as with the medications if they do not perform those laboratory tests at your facility or send them out to a reference lab.

The other new option on this menu is the VSML, which is to view your SNOMED list. So, if you're ever curious as to what SNOMED codes are included in determining if a person has a depression diagnosis, you can look here. Select and then number 2, and browse, and we will see all of the SNOMED codes that are used to determine depression.

But if you're going to go ahead and look at your taxonomies, the first thing to do is to check your taxonomies, TC16. And this is going to look at your taxonomies that support the 2016 Audit. What this option is going to display for us is if they find any taxonomies that are empty, they have no entries, or if there are problems with those laboratory test taxonomies. For example, the laboratory test taxonomy creatine kinase contains a panel test, a CK-MB 5030, and should not.

When we're looking at the laboratory test for the DM Audit, we want to look to see what a result was. So, we need to see results for what we call the laboratory package's atomic test versus panels. A panel consists of many tests, so the panel itself will not have a result, but only the children contained within that panel will have results. So we see on the BGP creatine kinase that we do have a panel on there and it should not be there. So we need to clean that up.

We also see that in the laboratory taxonomy for the GPRA estimated GFR that it also contains a panel, and it should not. So we'll need to clean that up too. The ALT Taxonomy also contains a panel. We see the drug taxonomies for amylin analogs have no entries, and that could be just fine. But you'll want to discuss this with your pharmacists or your providers to ask them, "Are you prescribing any amylin analogs? And if you are, then we need to get it into that taxonomy." But they very well may not be actually entering any at your facility.

Then we're going to go ahead and update your taxonomy, and that's TU16. What you'll see is a list of all of the taxonomies used in the Audit that can be locally modified.

We need to fix the creatine kinase taxonomy, number 2. So we're going to select that, click number 2. And we see all of these that were creatine kinase and we assumed they were all correct. But when we did the check, it told us that this SQL CK-MB 5030 is a panel, so we need to remove that. So we're going to simply type in R and the 6 to remove it, and quit. The other one was the estimated GFR, which is number 3. Again, we see that CMP, which is a panel, a Complete Metabolic Profile. We need to remove that.

So adding a missing lab test works just the same way. Let's check the ALT. Let's just say, perhaps there is an ALT that should be in there, we don't see it, we can go ahead and type an A to add and then type in ALT. And we see there is yet a different ALT, we would just go ahead and add that, number 2. Then, we would remove the CMP. But I want to save that for when we go to visual. That's how we add and remove entries from your taxonomies.

So if you do your TU check now or your TC check, we'll see that our creatine kinase error message is gone as well as our estimated GFR. But now we see that the ALT still contains a panel. So we could clean that up.

What I want to go back to show you though is: how in the world will I know what my laboratory folks are using to name their tests? Well, speak with them for one thing, or you can run this report that is under your Report Menu, LMR. You can run it for both your lab tests and your medications. We'll do lab tests first, and I'm going to start with 1/1/15 and go to 12/31/15, and browse it to the screen. This will take just a minute to pull all of these up. But what we'll end up seeing is a list of all the lab tests that were resulted in the year 2015 at your facility, and these could be reference lab tests or in-house tests.

We'll see right here on the first screen the variety of naming conventions that this particular laboratory is using. The first column is the actual test name. That is in what we call File 60 or Laboratory Test file, the internal entry number, how many are done in that year, the units of measure if available, and the result. If we don't see a result, then that most likely means that it was a panel test or it was never resulted.

Indented under the test name is the laboratory taxonomy that it is residing in. So we do see that this AC ratio is in the quantitative UACR taxonomy. And the ALT test that we performed is in the DM Audit ALT Taxonomy. We also can see our errors. Here, there's that CMP which is a panel is in our ALT taxonomy. So here, we can also see the test that may be in the wrong place, as well as tests that we know by the test name should be in a taxonomy.

This internal entry number here is a unique number assigned to each test. It's where it resides (numerically speaking) in the Laboratory Test file itself. So it may be easier to jot down the number, like 9999350 as opposed to remembering CQM Chlamydia trachomatis DNA when you want to go and add something to a taxonomy. We see we have an estimated GFR here with a value, however, it is not in a taxonomy. So, if our numbers were low on our estimated GFR for our audit, we would note here, this needs to get put into the taxonomy, and the same with this EST GFR.

So there are various naming conventions. You'll want to look at this list and then question your laboratory folks if it indeed is a test that should be in that particular taxonomy. I want to see if there are any point-of-care tests here. There are. POC is a standard naming convention for tests that are performed in-house. So, you might want to look especially at the POC section to see if you have any point-of-care test that should be in a taxonomy that aren't getting pulled up.

Another thing with the browser mode is you can search your list. So if you're looking for particular names like GFR or POC, you can do an SL to select POC. And it's telling me, "I don't have any more at the end of this list. Do you want me to go back to the beginning?" and I would say, "Yes." It looks for hypochromasia. "Stop here?" "No." And then, it shows us our POC test. And we see here that we do have a POC A1C Nisqually with values, but it is not in a taxonomy. So, we would have to then go back and update our taxonomy for Hemoglobin A1c.

We're going to look at the LMR for medications. And for medications, we only need to go back six months before the end of the audit year. So I'm going to go July 1st, 2015 to 12/31/15, and browse. Here, we have our list of medications and we can see as we did with the lab test what taxonomy they have been put into. And you want to use your pharmacist's help to look at these to make that it's correct or not. As with the laboratory test, we also have the internal number that we can use so we don't have to remember or write down the entire long name of the aspirin medication or whatever medication it is. We see right here we have a Metformin 500 milligram tab that is not in a medication taxonomy and should be.

So, you might ask, “What if I don’t have my pharmacist at hand? How can I see what kind of drugs might or should be in a particular taxonomy?” Again, I would draw your attention to the addendum because what we will see -- here are all the lists of taxonomies. There will be a section on the drug taxonomies, the education taxonomies, and the laboratory taxonomies, giving you examples of what drugs should be in each one of these taxonomies. You can be able to look at your LMR, and compare it to what you see for all your ACE inhibitors. Do I have Lisinopril in my taxonomy or Metformin? Is that in the correct taxonomy? So again, this addendum will be very helpful for you to figure out what should be in what taxonomy.

Going back here, what I would like to look at now is the Visual DMS to do the same that we’ve just done with Roll and Scroll RPMS. With Visual DMS, you need to make sure you have patch 9. I’m sorry I can’t make this any larger. You’re going to select your facility. In this particular case, we’re using CMBA and you’re going to want to put in your access and verify codes. And you don’t want to hit enter here, but rather use the tab or your mouse to move down to the verify code; type in the right code. It’s going to load up, find your division. If you have multiple divisions, you can select the division you want. Here, we only have one. What it’s going to do is pull up those registers, just like we saw in the roll and scroll.

We’re going to go ahead and just accept the IHS Diabetes. And again, I can’t make this any larger but I’ll move it over to maybe where you can see it a little bit better. We’re going to go and look at the Diabetes QA Audit because that is where we saw the logic. We’re going to go into the 2016, and we just click on the plus sign to expand this particular group of menu items. Here, we have to check for taxonomies. It’s going to show for us the results of the taxonomy search to see what has a panel if it’s a lab test or what if there’s something that is empty. It doesn’t show us however if we’re missing particular lab tests or particular medications unless it says there’s no entries at all. So you do have to refer to your laboratory and pharmacy for assistance.

To update it, you’re going to select your taxonomy. I’m going to look at the estimated GFR. It’s going to show me the tests that are in there, on this right-hand side. What I’m going to scroll down to look for is the estimated GFR. I believe we saw one. That was an EST. Then, to look for our EST GFR -- there it is, EST GFR, and then I’m going to click this right chevron to pull it over, and there it is. That’s how you populate in Visual DMS. Then you see here, it says, “Not saved.” We need to click the SAVE button in order to save that, and then we can close out.

We can also do the LMR from here by expanding the reports, and then going to list labs, medications used at this facility. For your labs, you’re going to go back to the beginning of 2015, 01/01/15, and go to December 31st, 2015. It’s going to queue the report. It says, “To look at the Report Status, to check.” You’re going to say, “Okay,” and you go up here to Report Status and click on the tab. We see that the report is completed, so we’re just going to click on it. It will open up as an MS Word document. We can then see that same list we were looking at in the browser mode in roll and scroll RPMS. And we see now that that EST GFR is now in that taxonomy. Oh, we still have two others that need to get in there. Oh, no, that’s a glucose. But this other estimated GFR needs to be populated.

So here we get a MS Word document that you can print out to look at or just look at it on the screen and then close it out when you’re done with it. And then, we’re back to our Visual DMS. We can also see the logic here. You’ll pick your audit year. Looks like we’re missing the audit logic for 2016 here, and that is because this is not the most current patch iteration for the Visual DMS on this particular database. But you would pick what it is that you want to see for any of these pieces of the logic and pull it over to the right hand column. You can pull over multiple and then say, “Okay” and it will then display for you the logic for that particular element of the audit.

Lastly, what I’d like to do is to show you where you can find your audit materials. From the IHS website, you can go to the tab “for Providers”. Then go to your Health and Wellness Programs link, and then to the Diabetes Treatment and Prevention link, and then to the Audit section. Here, we can see

our 2016 resources where we do already have posted the 2016 instructions, the 2016 form, and the 2015 addendum at this point. Once this software is released we'll have the 2016 Addendum, which you can pull down to be able to look at all those various taxonomies. But it is also helpful if you have not looked at this before, to review the 2015 because the medications really have not changed as the laboratory test also have not changed.

And any of the RPMS DMS info, you can get on the RPMS DMS tab, you can get the original DMS User Manual plus the addendum. And here, the addendum again is for last year, but when the software is released for 2016, that will be posted here.

That concludes the session on updating your taxonomies as you prepare for the 2016 audit. I thank you very much for your time and attention. And if you would, please, on the screen you should see the link in the box below to provide feedback on this training and to receive a certificate of completion. Again, thank you very much. Have a good day.