**From:** Brie Noble
**To:** Benjamin Chan
**Cc:** Brie Noble; Miriam Elman
**Subject:** RE: NDC codes
**Date:** Wednesday, January 08, 2014 3:33:16 PM

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Hi Ben,

So are the APAC NDC codes 11 digits without hyphens?

I am pretty sure to go from the 10 digit codes with hypens to the 11 digit codes without hyphens you follow this rule:

If the 10 digit format is 4-4-2 meaning ####-####-## then you add a leading zero to the first segment (0####-####-##) and then drop the hyphens so the 11 digit code would be 0##########
If the 10 digit format is 5-3-2 meaning #####-###-## then you add a leading zero to the second segment (#####-0###-##) and then drop the hyphens so the 11 digit code would be #####0#####
If the 10 digit format is 5-4-1 meaning #####-####-# then you add a leading zero to the second segment (#####-####-0#) and then drop the hyphens so the 11 digit code would be #########0#

Hope that makes sense. So if I am reading correctly you will have to take the package codes reported on the FDA website and transform them to the 11 digit code and then merge in with the APAC data.

Let me know if you need help with the programming in SAS, in the past I think I have parsed the string into 3 variables using an array and the scan function with a hyphen for a delimiter and then use the length function to assess the length of each of the parsed string and then add in the leading zero to whichever one doesn't meet the criteria, (i.e. the first parsed string should be length 5, the second length 4, and the third length 3) then you can concatenate them together.

Let me know if you have any questions!

Best,
Brie

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**From:** Benjamin Chan
**Sent:** Wednesday, January 08, 2014 2:58 PM
**To:** Brie Noble
**Subject:** NDC codes

Hey Brie,

A few months ago I asked you about the format of NDC codes in APAC. I'm revisiting this for a different project.

Here's the information I got from James Oliver over at OHPR when I asked about what format the NDC codes are in in APAC and why I couldn't merge drug details from the FDA website.

> The NDC field contains package codes in the historical NDC format (length 11, no delimiter, leading zeros preserved). Eventually insurers will need to move away from this format, but AFAIK it is still the EDI transaction standard.
>
> James

Do you know what this "historical NDC format" is? More importantly, where I can download a database of drug details that uses this format?

For reference, here's the FDA website from which I've downloaded drug information from: http://www.fda.gov/drugs/informationondrugs/ucm142438.htm. The NDC database file doesn't seem to be compatible with the "historical NDC format" codes used in APAC.

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