## MetaMap2018 Release Notes

François-Michel Lang metamap@nlm.nih.gov December 1, 2018

MetaMap18 fixes user-reported bugs with term processing, which is described at

https://metamap.nlm.nih.gov/Docs/FAQ/TermProcessing.pdf

and user-defined acronyms/abbreviations (UDAs), described on page 9 of

https://metamap.nlm.nih.gov/Docs/MM\_2011\_ReleaseNotes.pdf.

MetaMap2018 also adds enhanced acronym/abbreviation (AA) detection, described next.

Consider the following text, from PMID 10547582.

This paper describes a study of squamous intraepithelial lesions (SILs, n=36), squamous cell carcinomas (SCCs, n=42), and normal mucosa (n=5) of the uterine cervix.

In previous version of MetaMap, the AAs detected were

10547582|AA|SILs, n=36|squamous intraepithelial lesions|6|10|5|32|846:10 10547582|AA|SCCs, n=42|squamous cell carcinomas|6|10|5|24|891:10

which incorrectly reports "SILs, n=36" and "SCCs, n=42" as the AAs for squamous intraepithelial lesions and squamous cell carcinomas, respectively.

Beginning with MetaMap18, however, the AAs for the above sentence will be

10547582|AA|SIL|squamous intraepithelial lesion|1|3|5|31|627:3 10547582|AA|SILs|squamous intraepithelial lesions|1|4|5|32|846:4 10547582|AA|SCC|squamous cell carcinoma|1|3|5|23|666:3 10547582|AA|SCCs|squamous cell carcinomas|1|4|5|24|891:4

There are two improvements:

- 1. The spurious characters ", n=36" and ", n=42" are not identified as part of the short form of the AAs, and
- 2. both the singular and plural versions of the AAs are reported.

The AAs discovered by MetaMap are displayed in MetaMap's Fielded Output, described at https://metamap.nlm.nih.gov/Docs/MMI\_Output\_2016.pdf

AAs are also displayed in human-readable output if either the --aas\_only or --dump\_aas (short form -j) is used.

MetaMap2018 will also report both singular and plural forms of non-quantified plural AAs. E.g., for squamous intraepithelial lesions (SILs), MetaMap2018 will report

 $10547582 | AA|SIL| squamous intraepithelial lesion | 1|3|5|31|627:3\\ 10547582 | AA|SILs| squamous intraepithelial lesions | 1|4|5|32|846:4$ 

as above.