



HIGHLIGHTS



In what circumstances do granulomatous and eosinophilic gastritis occur? What are the etiologies of dysphagia in gastroesophageal reflux disease?

• Successful approach that makes use of two flexible translation systems

DATA SOURCES

Corpus	Tokens (en)	weight
Сорра	$10\mathrm{M}$	-3
Emea	$6\mathrm{M}$	26
Pattr-Abstracts	$20\mathrm{M}$	22
PATTR-CLAIMS	32M	6
Pattr-Titles	3M	4
UMLS	$8\mathrm{M}$	-7
Wikipedia	17k	-5
NewsCommentary	$4\mathrm{M}$	6
Europarl	$54\mathrm{M}$	-7
Giga	$260\mathrm{M}$	27
all	$397\mathrm{M}$	33

PART-OF-SPEECH TAGGING

- Medical data exhibit **different** syntactic constructions and a specific vocabulary
- We use a specific model trained on medical data

PoS tagging	Devel	Test
Standard	47.9 ± 0.0	44.8 ± 0.1
Specialized	48.3 ± 0.1	$45.4\pm$ 0.0

Error

ANALYSIS											
	extra	missi	lng		ir	acorrect			unkr	nown	
	word	content	filler	disamb.	form	style	term	order	word	term	all
SysComb	4	13	20	47	62	8	18	21	1	11	205
OTF+VSM+Soul	4	4	31	44	82	6	20	42	3	12	248

Manual error analysis following (Vilar et al., 2006) for the first 100 test sentences.

LIMSI@WMT'14 Medical Translation Task

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• Subtask of sentence translation from summaries, English \rightarrow French

• **Combining both data sources** drastically boosts performance

	Devel	Test
medical	42.2 ± 0.1	39.6 ± 0.1
WMT'13	$43.0\pm$ 0.1	$41.0\pm$ 0.0
both	48.3 ± 0.1	$45.4 \pm$ 0.0

BLEU scores obtained by NCODE

PROXY TEST SET

- Only a small development set is available (500 sentences)
- This makes both system design and tuning challenging
- We created an internal dev/test set (LMTEST) by extracting sentences from PATTR-ABSTRACTS

Devel	LMTEST	NewsTest12	TES
$\boxed{48.3 \pm 0.1}$	46.8 ± 0.1	$26.2 \pm$ 0.1	45.4_{\pm}
41.8 ± 0.2	48.9 ± 0.1	18.5 ± 0.1	40.1_{\pm}
39.8 ± 0.1	$37.4\pm$ 0.2	29.0 ± 0.1	39.0_{\pm}









OTF — on-the-fly estimation of the parameters of a standart phrase-based model

VSM — Vector space model to perform domain adaptation

SOUL — Continuous space models working on top of conventional lan-

SysComb — Combination of both systems (reranking)

Devel	Test
48.5	45.2
49.8	45.9
50.1	47.0
46.6	42.5
46.9	42.8
48.4	44.2
49.7	44.9
50.7	46.5