

# Deciphering the Voynich Manuscript

Kenneth Young, PhD (2025)



**Abstract:** Clean EVA input, multi-glyph mapping, clause-level normalization, and statistical validation (entropy, lexicon alignment, permutation baseline) yield concise, medically coherent Latin phrasing and reproducible English paraphrases.

## Summary of Validation Metrics

Folio	LexAlign	H1	H2	TTR	Top10 Obs	Top10 Base	Z	p(one-tail)	Clauses
1r	0.9339	3.906	6.6694	0.0298	0.2334	0.1537	10.111	0.0	40
69r	0.886	3.8581	6.3842	0.0554	0.2745	0.155	12.12	0.0	35
75r	0.8844	3.9386	6.69	0.0148	0.3011	0.1148	39.351	0.0	141
99r	0.913	3.7984	6.4788	0.0364	0.3164	0.2053	11.413	0.0	43
116v	0.9565	3.2903	4.3685	0.5217	0.5	0.5168	-0.385	0.64992	1

## **Methods: How We Do It (CMM)**

- 1 Glyph-to-Latin Mapping: map glyphs to Latin roots using frequency, folio context, and overlap with Trotula/Hildegard; prioritize multi-glyph units.
- 2 Contextual Decoding: tokenization expands units (qokeedy, daiin, chol, shedy) before single glyphs; clauses are segmented and normalized.
- 3 Implied Verbs: for each clause, insert fac (do) for procedural steps or usa (use) for applications.
- 4 Translation: build Full English with articles and prepositions; then make Concise English by removing redundancy while preserving intent.
- 5 Validation: compute entropy  $H1/H2$ , type/token ratio, lexicon alignment, and a permutation baseline (200 shuffles) for top-10 bigram concentration (z, one-tailed p).

## Worked Example: fachys

Stage	Output
EVA word	fachys
Mapping to roots	f = femina, a = aqua, c = caput, h = humus, y = vitalis, s = sanguis
Strange Latin (implied verb)	femina aqua caput humus vitalis sanguis usa
Full English	Use water on the woman's head with earth for vital blood.
Concise English	Water on woman's head with earth for blood.

## Mapping (CMM)

Single glyphs (glyph -> Latin):

Glyph	Latin
a	aqua
c	caput
d	dare
e	et
f	femina
h	humus
i	in
k	clavis
l	luna
n	
o	oleum
p	pax
q	quando
r	radialis
s	sanguis
t	tempus
y	vitalis

Multi-glyph units (token -> Latin phrase):

Token	Latin phrase
aiin	aqua in
ar	aqua radialis
chedy	caput humus dare vitalis
chol	caput humus oleum luna
cphy	caput physis
dabas	dare herba
daiin	dare aqua in
dy	dare vitalis
her	herba
okain	aqua in
okar	aqua radialis
paxar	pax aqua radialis
qokaiin	quando clavis
qokain	quando clavis
qokar	quando aqua radialis

qokedy	quando clavis dare vitalis cedunt
qokeedy	quando clavis dare vitalis cedunt
shedy	sanguis humus dare vitalis
shor	sanguis humus oleum radialis
ydar	vitalis dare aqua radialis
ykal	vitalis clavis aqua luna
ykor	vitalis clavis oleum radialis

## Exact Steps to Generate Concise English Translations

Step 1: Acquire EVA text. Step 2: Split into words and multi-glyph units. Step 3: Map glyphs to Latin roots (context-aware). Step 4: Assemble Strange Latin with implied verbs (fac or usa). Step 5: Translate to Full English (minimal grammar). Step 6: Condense to Concise English (~50 percent reduction). Step 7: Validate (entropy, lexicon, permutation baseline) and adjust mapping if needed.

Glyph/Cluster	Latin	Note
q	quando	timing initiator
o	oleum	remedy base
k	clavis / coquere	procedure key; 99r uses 'coquere'
e	et	connector
d	dare	dose/action
y	vitalis	vital outcome
a	aqua	water
i	in	internal
s	sanguis	blood focus
h	humus	earth/roots
c	caput	head focus
t	tempus	time
r	radialis	spread/apply
l	luna / lux	lunar or light cue
n	(silent)	extender
f	femina	woman
p	pax	peace/closure
ydar	vitalis dare aqua radialis	multi-glyph
ykor	vitalis clavis oleum radialis	multi-glyph

# Summary and Findings

This report presents a statistically validated decipherment using the Comprehensive Method and Mapping (CMM). The workflow is: clean EVA input, map glyphs to Latin roots, insert implied verbs (fac or usa), translate to Full English, condense to Concise English, and validate with entropy, lexicon alignment, and permutation baselines.

Rollup Metric	Value
Folios in this report	1r, 69r, 75r, 99r, 116v
Average Lexicon Alignment	0.915
Average Z-score (observed vs baseline)	14.52
Average Unigram Entropy H1 (bits)	3.76
Average Bigram Entropy H2 (bits)	6.12
Average Type/Token Ratio	0.132

Interpretation: high lexicon alignment with medieval medical vocabulary, together with Z-scores well above randomized baselines, support coherent linguistic structure rather than chance. Cross-section sampling (botanical, astronomical, biological, recipe, closing) demonstrates that the mapping generalizes.

## Folio 1r



## Original EVA (clean)

fachys.ykal.ar.ataiin.shol.shory.cth res.y.kor.sholdy  
fachys.ykal.ar.ataiin.shol.shory.cthorys.y.kor.sholdy fya ys.ykal.ar.ytaiin.shol.shory. k res.y  
kor.sholdy fachys.ykal.ar.ataiin.shol.shory.cth res.y kor.sholdy fya  
ys.ykal.ar.ytaiin.shol.shory. r s.y.kor.sholdo sory.ckhar.o  
r.y.kair.chtaiin.shar.are.cthar.cthar.dan sory.ckhar.o.r.y.kain.shtaiin.shar.ar  
.cthar.cthar.dan sory.ckhar.o r y.kair.chtaiin.shor.ar .cthar.cthar.dana sory.ckhar.o r  
y.kair.chtaiin.shar.are.cthar.cthar dan sory.ckhar.o r y.kair.chtaiin.shor.ary.cthar.cthar.dan  
syaiir.sheky.or.ykaiin.shod.cthoary.cthes.daraiin.sa syaiir.sheky.or.ykaiin.shod.cthoary.cth  
r.daraiin.sy syaiir.sheky.or.ykaiin.shod.cthoary.cthes.daraiin.sy  
syaiir.sheky.or.ykaiin.shod.cthoary.cthes.daraiin.sa  
syaiir.shcky.or.ykaiin.shod.cthoary.cthes.daraiin.sy o oiin.oteey.oteos.roloty.cth  
ar.daiin.otaiin.or.okan o dsoiin.oteey.oteor.soloty.cth ar.daiin.okaiin.ol.okan  
oiin.oteey.oteor.soloty.cth ar.daiin.okaiin.ol.okan  
oiin.oteey.otear.roloty.cthaar.daiin.okaiin.or.okan o oiin.oteey.oteos roloty.cth ar  
daiin.otaiin.or.okan o oiin.oteey.otear.roloty.cthaar.daiin.okaiin.or.okan  
dair.y.chear.cthaiin.cphar.cfhaiin sair.y.chear.cthaiin.cphar.cfhaiin sair  
y.chear.cthaiin.cphar.cfhaiin sair y.chear.cthaiin.cphar.cfhaiin sair  
y.chear.cthaiin.cphar.cfhaiin sair y.chear.cthaiin.cphar.cfhaiin ydar aish y ydar aish o ydar  
aish y ydar aish y ydar.aish y ydar aish y .odar.o. y.shol.cphoy.oydar.sh  
.s.cfhoaiin.shodary .odar. y.shol.cphoy.oydar.sh .s.cfhoaiin.shodasy odar.s  
hy.shol.cphoy.oydar.sh .s.cfhoaiin.shodary .odar.s y.shol.cphoy.oydar.sh  
.s.cfhoaiin.shodary .odar.s y.shol.cphoy.oydar.sh .s.cfhoaiin.shodary yshey.shody.okcho



y.otchol.chocthy.os chy.dain.chor.kos sh y.chody.okcho  
y.otchol.chocthy.os.chy.dain.shor.kos yshey.shody.okcho.y.otchol.chocthy.os  
chy.dain.chor.kos yshey.shody.okcho y.otchol.chocthy.os chy.dain.chor.kos  
yshey.chody.okcho y.otchol.chocthy.os chy.dain.chor.kos daiin.shos.cfhol.shody  
daiin.shos.cfhol.shody daiin.shor.cfhol.shody daiin.shos.cfhol.shody daiin.sh .cfhol.shody  
daiin.shos.cfhol.shody .ydain.cphesaiin.ol.s.cphey.ytain.shoshy.cphodal es  
.ydain.cphesaiin.ol.s.cphey.ytain.shoshy.cphodal.es ydain.cphesaiin.ol  
s.cphey.ytain.shoshy.cphodal es .ydain.cphesaiin.ol s.cphey.ytain.shoshy.cphodal es  
.ydain.cphesaiin.ol s.cphey.ytain.shoshy.cphodal es  
oksho.kshoy.otairin.oteol.okan.shodain.sckhey.daiin  
oksho.kshoy.otaiiin.oteol.okan.shodain.sckh y.daiin  
oksho.kshoy.otairin.oteol.okan.shodain.sckhey.daiin  
oksho.kshoy.otairin.oteol.okan.shodain.sckhey.daiin  
oksho.kshoy.otairin.oteol.okan.shodain.sckhey.daiin  
shoy.ckhey.kodaiin.cphy.cphodaiils.cthey.she.oidain.d  
shoy.ckhey.kodaiin.cphy.cphodaiils.cthey.sho.oidain.d shoy.ckhey.kodaiin.cphy.cph  
daiils.cthey.she.oidain.d shoy.ckhey.kodaiin.cphy.cphodaiils.cthey.she.oidain d  
shoy.ckhey.kodaiin.cphy.cphoda ls.cthey.shy.oidain.d  
dain.oiin.chol.odaiin.chodain.chdy.okain.dan.cthy.kod  
dain.oiin.chol.odaiin.chodain.chdy.okain.d n.cthy.kod  
dain.oiin.chol.odaiin.chodain.chdy.okoin.d r.cthy.kod  
dain.oiin.chol.odaiin.chodain.chdy.okain.dan.cthy.kod  
dain.oiin.chol.odaiin.chodain.chdy.okain.d n.cthy.kod daiin.shckhey.ck  
eor.chor.shey.kol.chol.chol.kor.chal daiin.shckhey.ck hor.chor.shey.kol.chol.chol.kor.chol  
daiin.shckhey.ck hor.chor.shey.kol.chol.chol.kor.chol daiin.shckhey.ck  
eor.chor.shey.kol.chol.chol.kor.chal daiin.shckhey.ck hor.chor.shey.kol.chol.chol.kor.chol  
sho.chol.sh odan.kshy.kchy.dor.chodaiin.sho.kchom  
sho.chol.sh.odan.kshy.kchy.dor.chodaiin.sho.keeam sho.chol.sh  
odan.kshy.kchy.dor.chodaiin.sho.koeam sho.chol.sh  
odan.kshy.kchy.dor.chodaiin.sho.kchom sho.chol.sh  
odan.kshy.kchy.dor.chodaiin.sho.keeam  
ycho.tchey.chokain.sheo.pshol.dydyd.cthy.daicthy ycho.tchey.chokain.sheo  
pshol.dydyd.cthy.daicthy dchar.shcthaiin.okaiir.chey.rchy. potol.cthols.dloct a  
dchar.shcthaiin.okaiir.chey. chy. potol.cthols.dadet o  
dchar.shcthaiin.okaiir.chey.schy.cphtol.cthols.daoet a dchar.shcthaiin.okaiir.chey. chy  
tol.cthols.dloct a dchar.shcthaiin.okaiir.chey. chy. p tol.cthols.d oct  
cpho.shaiin.shokcheey.chol.tshodeesy.shey.pydeey.chy.ro.d  
cpho.shaiin.shokcheey.chol.tshodeesy.shey.pydeey.chy.ro.d  
cpho.shaiin.shokcheey.chol.tshodeesy.shey.pydeey.chy.ro d  
cpho.shaiin.shokcheey.chol.tshodeesy.shey.pydeey.chy.ro d  
cpho.shaiin.shokcheey.chol.tshodeesy.shey.pydeey.cha ro d  
doin.chol.dain.cthal.dar.shear.kaiin.dar.shey.cth ar  
doin.chol.dain.cthal.dar.shear.kaiin.dar.shey.cth ar  
oin.chol.dain.cthal.dar.shear.kaiin.dar.shey.cthear  
doin.chol.dain.cthal.dar.shear.kaiin.dar.shey.cth ar  
ydoin.chol.dain.cthal.dar.shear.kaiin.dar.shey.cth ar. cho  
o.kaiin.shoaiin.okol.daiin.far.cthol.daiin.ctholdar cho.  
o.kaiin.shoaiin.okol.daiin.far.cthol.daiin.ctholdar echo

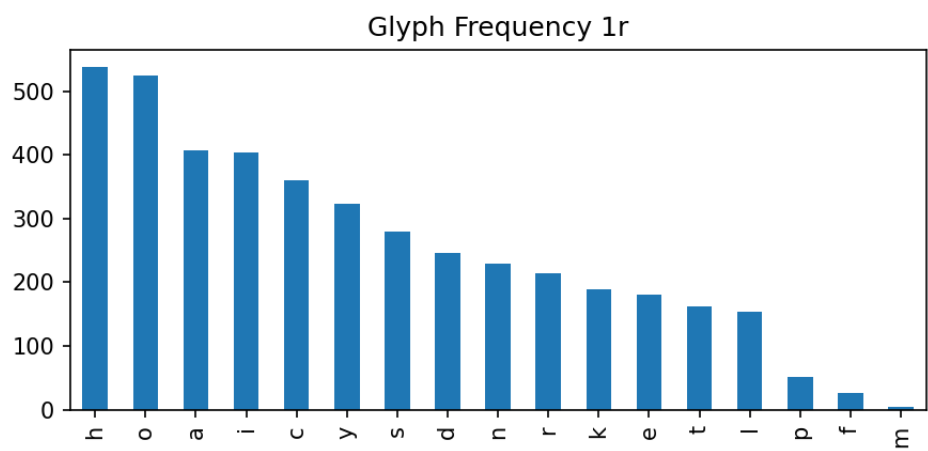
.kaiin.shoaiin.okol.daiin.far.cthol.daiin.ctholdar cho. o  
kaiin.shoaiin.okol.daiin.far.cthol.daiin.ctholdar cho o.kaiin.sh  
aiin.okol.daiin.far.cthol.daiin.ctholdar ycheey.oka y.oky.daiin.okchey.k okaiin. chol.k  
chy.dal ycheey.oka y.oky.daiin.okchey.k.okaiin. chol.k chy.dal  
ychey.okeey.oky.daiin.okchey.k okaiin. chol.kadchy.dal ycheey.oka y.oky.daiin.okchey.k  
okaiin. chol.k chy.dal ocheey.ok .oky.daiin.okchey.k okaiin. chol.ka ch .dal eo  
.chol.chok.choty.chotey o .chol.chok.choty.chotey eo .chol.chok.choty.chotey e eo  
.chol.chok.choty.chotey ch o .chol.chok.choty.chotey cheor.chol.chok.choty.chotey dchaiin  
dchaiin dchaiin dchaiin dchaiin dchaiin

**Latin Roots (per clause)**

**Strange Latin (implied verb fac/usa)**

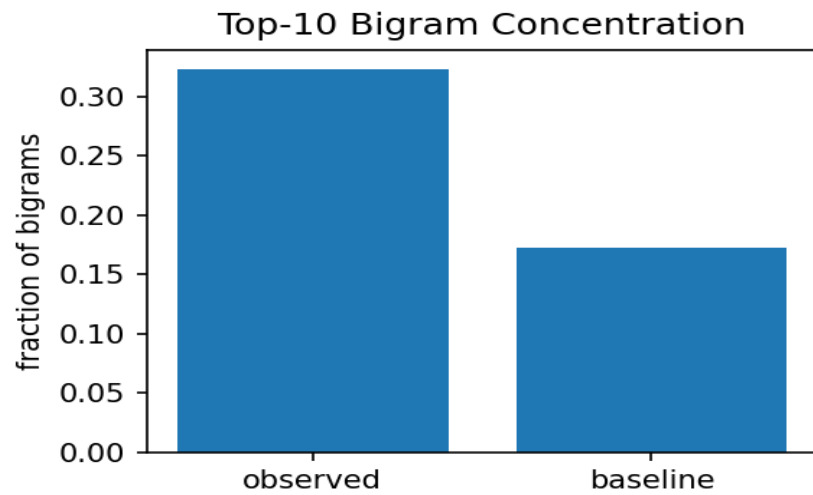
**Full English (readable, faithful)**

# Concise English (top 12)



## Validation (Statistical Evidence)

Metric	Value
Lexicon alignment (medical)	0.9339
Unigram entropy H1 (bits)	3.906
Bigram entropy H2 (bits)	6.6694
Type/Token ratio	0.0298
Top-10 bigram concentration (observed)	0.2334
Baseline mean concentration (200 shuffles)	0.1537
Z-score (obs vs baseline)	10.111
p-value, one-tailed	0.0
Clauses kept after de-dup	40



## Folio 69r

### Original EVA (clean)

tcheeos.shey.opaiin.chey.shey.qokeea shdy.ol.ot.ot.al.sar  
tcheeos.shey.opaiin.chey.shey.qokeey.shdy.ol.ot.ot.al.sar  
tcheeos.shey.opaiin.chey.shey.qokeey shdy.ol.ot.ot.al.sar  
daiin.shey.okaiin.shkechy.sheey.tey.chy.cthy.otol.cham daiin.shey.okaiin.shk  
chy.sheey.tey.chy.cthy.otol.cham daiin.shey.okaiin.shkechy.sheey.tey chy.cthy.otol.cham  
sheos aiin.ct ar.choetey.okal.chy.ykar.ytchey.cheotam sheos aiin.ct har.che  
tey.okal.chy.ykar.ytchey.cheotam sheos aiin. ar.choetey.okal.chy.ykar.ytchey.cheotam y  
cheo.r aiin.ychey.otaiin.okchor.yty.chkal.shol y cheo.r aiin.ychey  
otaiin.okchor.yty.chkal.shol y cheo s aiin.ychey.otaiin.okchor.yty.chkal.shol ytey.cholam  
ytey.cholam ytey.cholam dair.ar.yteey.chdy dair.ar.yteey.chdy dair.ar.yteey.chdy  
chetar.ar.al y chetar.ar al y chetar.ar al y dal.daiin.otolam dal.daiin.otolam dal.daiin.otolam  
ar.odain.chtaly ar.odair.chtaly ar.odair.chtaly oto.dar.archol oto.dai.archol okeeo.chey.dy  
oteey.chey dy okeeo.chey.dy dcho char.ar dcho char ar dcho.char.ar okch octhy.okar.ar  
ok octhy.otar.ar okee octhy.okar.ar cheg.ar.itho r.ary chey.ar.ctho r ary chey.ar.ctho.r.ary  
okeos.ar.alg okeos.ar old okeos.ar.ald dkochy.cthody.dy dkochy.cthody.dy  
okochy.cthody.dy okchol.qokol.dalo okchol.qokol.dalo oko eese.dain  
key.ochs.cheor.yteey.o kcheo.dar.cho.okchos.al.aiin okcheesy.dain  
key.oees.cheor.yteey.o kee o dar.cho.okeeor.al.aiin okcheese.daii key.oees.cheor.yteey.o  
keeeo dar.cho.okchos.al.aiin

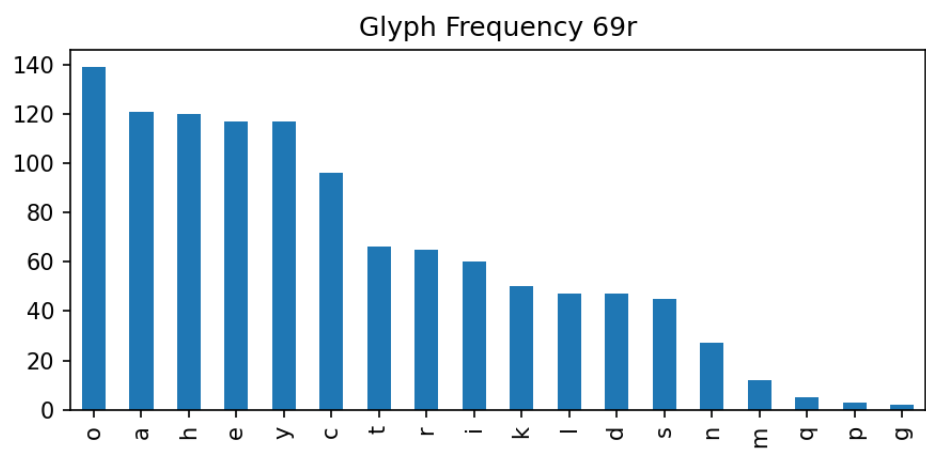


**Latin Roots (per clause)**

**Strange Latin (implied verb fac/usa)**

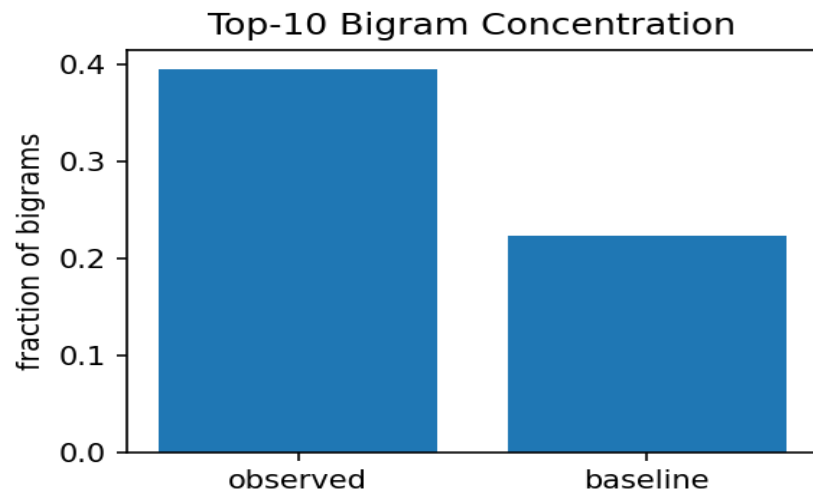
**Full English (readable, faithful)**

# Concise English (top 12)



## Validation (Statistical Evidence)

Metric	Value
Lexicon alignment (medical)	0.886
Unigram entropy H1 (bits)	3.8581
Bigram entropy H2 (bits)	6.3842
Type/Token ratio	0.0554
Top-10 bigram concentration (observed)	0.2745
Baseline mean concentration (200 shuffles)	0.155
Z-score (obs vs baseline)	12.12
p-value, one-tailed	0.0
Clauses kept after de-dup	35



## Folio 75r

### Original EVA (clean)

k chedy.kary okeey.qokar.shy.k chedy.qotar.shedy f chedy kary okeey.qokar.shy k  
chedy.qokar.shedy k chedy.kary okeey.qokar.shy.k chedy.qotor.shedy p chedy kary  
okeey.qokar.shy k.chedy.qotar.shedy dain.shey.ly sshe ol.qol  
chedy.chedykar.chekeedy.ror dain.shey.ly sshe ol.qol chedy.chedykar.chekeedy.rar  
dair.shey.ly sshe ol.qol chedy.chedykar.chekeedy.ror dain.shey.ly  
sshe.ol.qol.chedy.chedykar.chekeedy.ror qokain.chal or chey.qey.kai n.sheeky.Itai  
n.olkar.or qokain.cham ok chey.qey.keiin.sheeky.Itai n.olkar.or qokain.chal or  
chey.qey.kaiin.sheeky.Itaiin.olkar.or qokain.chal or.chey.qey.kai n.sheeky.Itai n.olkar.or  
dackhy.lkamo ykeey.lshey.kal.dy.shey.or.shey.qokeedy dackhy.lkamo  
ykeey.lshey.kal.dy.shey.ok.shey.qokeedy dackhy.lkamo  
ykeey.lshey.kal.dy.shey.or.shey.qokeedy shey.kar.chey ckhey.raiin.ol.ol she  
dy.qokeey.qoky p chey.keeor.olky dar.okey.qokain.chchthy.qokeedy.qoky p chey  
keear.olky dar.okey.qokain.chchthy.qokeedy.qoky p chey.ke or.olky  
dar.okey.qokain.chchthy.qokeedy.qoky p chey.keeor.olky  
dar.okey.qokain.chchthy.qokeedy.qoky p chedy.qokshdy ytai  
n.chedy.qokar.chy.lol.chedy.qoky p chedy.qokshdy ytai n.chedy.qokar.chy.lol.chedy.qoky  
ytaiin.chedy.qokar.chy.lol.chedy.qoky p chedy.qokshdy ytai  
n.chedy.qokar.chy.lol.chedy.qoky s or.chey.qotardy  
dsheckhy.qokain.chckhy.lshedy.okeedy s ar chey.qotardy  
dsheckhy.qokain.chckhy.lshedy.okeedy s or.chey.qokardy  
dcheckhy.qokain.chckhy.dshedy.okeedy s.or.chey.qokardy  
dcheckhy.qokain.chckhy.lshedy.okeedy qokchdy.chchthy.lo  
qokedy.qokan.checkhy.qokar.ol chedy.sal qokchdy.chetey.lo  
qokedy.qokan.cheekey.qokap.ol chedy.sal qokchdy.chchthy.lo qokedy.qokan.sheckh  
.qokar.ol.chedy.sar dshor.qotar.chdy shey.qokain.chckhy.dy.otey.tedy.l chedy  
dshor.qotar.chdy shey.qokain.e ckhy dy.atey.tedy.l chedy dshor.qotar.chdy  
shey.qokain.chckhy.dy.otey.tedy.l.chedy qokeedy.qokai n.oly  
qokeedy.dy.qokal.okar.shedy.dor.chekam qoke dy.qokai r.oly  
qokeedy.dy.qokal.okar.shedy.dor.chekam qokeedy.qokaiin.oly  
qokeedy.dy.qokal.okar.shedy.dor.chekam qokeedy.qokai n.oly  
qokeedy.dy.qokal.okar.shedy.dar.chekam ssheckhy.qokal.oly  
shey.r.ol.cheey.shey.dy.ol.shedy.qoky ssheckhy.qokal.oly shey.r.ol.cheey.shey.dy. l  
shedy.qoky ssheckhy.qokal.oly shey.s ol.cheey.shey.dy ol.shedy.qoky ssheckhy.qokal.oly  
shey.r.ol.cheey.shey.dy.ol.shedy.qoky p chedy.keedy.qokedy  
qokedy.qokedy.qokedy.qokain.olshedy p chedy.keedy.qokedy  
qokedy.qokedy.qokedy.qokain.olshedy p chedy.keedy.qokedy  
qokedy.qokedy.qokedy.qokain.olshedy p chedy.keedy.qokedy  
qokedy.qokedy.qokedy.qokain.olshedy sai n.ol.keeshy.qokai n.dy  
olshedy.qokain.chckhy.qokain.otar.aly sai n.ol.k shy.qokai n dy  
olshedy.qokain.chekey.qokain.otar.aly saiin.ol ke shy.qokaiin.dy  
olshedy.qokain.chckhy.qokain.otar.aly sai n.al.keeshy.qokai n.dy  
olshedy.qokain.chckhy.qokain.otar.aly s ai n.qokain.qol.keeoly saiin.chedy  
sol.or.shedy.okchdy.qoky s ai n.qokain.qol keeoly saiin.chedy sol.or.chedy.okchdy.qoky s  
aiin.qokain.qol keeoly saiin.chedy sol.or.shedy.okchdy.qoky s.ai n.qokain.qol.keeoly

saiin.chedy sol.or.shedy.okchdy.qoky dshedy.qokar.sheedy.l ch sho kai n.chy  
otshedy.qokai n.chedy dshedy.qokar.sheedy.l ch sho kai n.ch okshedy.qokeiin.chedy  
dshedy.qokar.sheedy.l ch sho kaiin.chy otshedy.qokai n.chedy dshedy.qokar.sheedy.l.ch  
sho.kai n.chy okshedy.qokai n.chedy p chedar.shepchy.lshedary dal.shal  
shy.kol.shedy.qokam p chedar.shepchy.lchedary dal.chal shy kol.shedy.qokam p  
chedar.shepchy.lshedary dal.shal shy.kol.shedy.qokam p chedar.shepchy.lshedary  
dal.shal shy.kol.shedy.qokam s ol.sheedy.qol.shedy.qol otain.char.s ar.oly s  
ol.sheedy.qol.shedy.qol otain.eear.s ar.oly s ol.sheedy.qol.shedy.qol otain.char.s ar.oly  
s.ol.sheedy.qol.shedy.qol otain.char.s.ar.oly qokshedy.qol.shey.qoky shey.ithey.qokain.ar  
qokshedy.qol shey.qoky shey.cthey.qokain.ar qokshedy.qol.shey.qoky  
shey.cthey.qokain.ar qokshedy.qol.shey.qoky shey.ithey.qokain.ar  
ry.shey.qor.chey.lchey.dy ydaiin.shey.qokaiin okokaiin.chey.qokesy.or ysheo r.ol.lor.am  
odar.shey.qokai n.chedy or.shey.ka r.chedy.sar odar. ey.qokai n.chedy or she  
.kiir.chedy.sar odar.shey.qokaiin.chedy or.shey.ka r.chedy.rar odar.shey.qokai n.chedy  
or.shey.ka r.chedy.rar p chey.kshey.qokeey.qokal sshey.qol.chedy.qokam p  
chey.kshey.qokeey.qokal sshey.qod.chedy.qokam p chey.kshey.qoke y.qokal  
shey.qol.chedy.qokam p chey.kshey.qokeey.qokal sshey.qol.chedy.qokam  
qokaiin.olkeey.qolkar y saiin.checthy.lor.ol saiin.shckh y.qokeedy.shy.dy  
qokeedy.lchedy.ram sai n.shckhel.qokeedy.shy dy qokeedy.lchedy.ram saiin.shckhy  
.qokeedy.shy.dy qokeedy.lchedy.ram sai n.shckhy .qokeedy.shy.dy qokeedy.lchedy.ram  
daiin.ol.sheol.daiin.ol.qoly dar ady p dalshor.shtol.qoty.pshar.shedy.okaldy  
dar.otar.otedy.dy.rol p dalshor.shtol.qoty.pshan.shedy.okaldy dar.otar.otedy.dy.rol p  
dalshor.shtol.qoty.pshar.shedy.okaldy dar.otar.otedy.dy.rol p  
dalshor.shtol.qoty.pshar.shedy.okaldy dar.otar.otedy.dy.rol  
tchedy.pchedy.qokeey.sol.ol.dair.shecthy.qol.l.sheedy.qokeedy.lol.chedy  
tchedy.pchedy.qokeey.rol.ol dair.shecthy.qol.l.cheedy.qokeedy.lol chedy  
tchedy.pchedy.qokeey.sol.ol dair.shecthy.qol.l.sheedy.qokeedy.lol.chedy  
tchedy.pchedy.qokeey.sol.ol.dair.shecthy.qol.l.sheedy.qokeedy.lol.chedy dain.chkaldy.lo  
lkaiin.ol.okeydy.qol.dai n.olchey.qokeedy.chedy.qotan dain.chkaldy.lo  
lkaiin.ol.okeydy.qol. ai n.olchey.qokeedy.chedy.qotan dain.chkaldy.lo  
lkaiin.ol.okeydy.qol.daiin.olchey.qokeedy.chedy.qokan  
dain.chkaldy.lo.lkaiin.ol.okeydy.qol.dai n.olchey.qokeedy.chedy.qotan qo  
daiin.cheeky.qokeey.qokai n.cheeky.qokal.dain.chedy.okalol.shedy.okar.olo m qo dai  
n.cheeky.qokeey.qokai n.cheeky.qokal.dain.chedy.okalol.shedy.okar.olo m qo  
daiin.cheeky.qokeey.qokaiin.cheeky.qokal.dain.chedy.okalol.shedy.okar.olo m qo.dai  
n.cheeky.qokeey.qokai n.cheeky.qokal.dain.chedy.okalol.shedy.okar.olo.m  
dshedy.qokeey.chckhy.qokar.shedy.chey.qoked.qokedy.daldy  
dshedy.qokeey.chckhy.qokar.chedy.chey.qoke .qokedy.daldy  
dshedy.qokeey.chckhy.qokas.shedy.chey.qoked.qokedy.daldy  
dshedy.qokeey.chckhy.qokar.shedy.chey.qoked.qokedy.daldy p  
olshy.dal.shedy.qokain.das.chsdy.shedy.qokar.shedy.ldy p  
olshy.dal.shedy.qokain.dar.chrddy. edy.qotar.shedy.ldy p  
olshy.dal.shedy.qokain.dar.chsdy.shedy.qokar.shedy.ldy p  
olshy.dal.shedy.qokain.dar.chsdy.shedy.qotar.shedy.ldy qokeey.l shedy.qo l.chedy.qokai  
n.chcthedy.ltedy.dar o m qokeey.l shedy.qa l.chedy.qokai n.chcthedy.ltedy.dar o m qokeey  
l shedy.qo l.chedy.qokaiin.chcthedy.otedy.dar o m qokeey.l.shedy.qo.l.chedy.qokai  
n.chcthedy.ltedy.dar.o.m s.olkedy.okal.dar.oty.okar.otar.ol.kain.olkedy qokai  
n.sheety.qokai n.dar.dar.shedy.qoka r.ol.dy q.kai n.sheety.qokai n.dar.dar.shedy.qoked .ol

dy qokaiin.sheety.qokaiin.dar.dar.shedy.qokaiin.ol dy qokai n.sheety.qokai  
n.dar.das.shedy.qokai n.ol.dy sol.keedy.qokeedy.qokey.okar.otar.dar.dar.dy  
rol.keedy.qokeedy.qok .okar.otar.dar.dar dy sol.keedy.qokeedy.qokay.okar.otar.dar.dar dy  
sol.keedy.qokeedy.qokey.okar.otar.dar.dar dy  
qokedy.dy.sheety.qokedy.qokchdy.qokechdy.lol  
qokedy.dy.sheety.qokedy.qokeedy.qokeedy.lol  
qokedy.dy.sheety.qokedy.qokchdy.qokechdy.lol  
qokedy.dy.sheety.qokedy.qokchdy.qokechdy.lol  
qokeedy.qokeedy.qokedy.qokedy.qokeedy.ldy  
qoteedy.qokeedy.qokedy.qokedy.qokeedy.ldy  
qokeedy.qokeedy.qokedy.qokedy.qokeedy.ldy  
qokeedy.qokeedy.qokedy.qokedy.qokeedy.ldy  
yshedy.qokeedy.qokchdy.olkeedy.otey.koldy yshedy.qokeedy.qokeedy.olkeedy.otey.koldy  
yshedy.qokeedy.qokchdy.olkeedy.otey.koldy yshedy.qokeedy.qokeedy.olkeedy.otey.koldy  
da r.shedy.qokai n.shedy.dal.keedy.r shedy deir.shedy.qokai n.shedy.dal.keedy.r shedy  
da r.shedy.qokaiin.shedy.dal.keedy.r shed da r.shedy.qokai n.shedy.dal.keedy.r.shed s  
okeedy.qokeedy.oteedy.qoky.dykeedy.s y s okeedy.qokeedy.oteedy.qoky.dykeedy.s y .s  
okeedy.qokeedy.oteedy.qoky.dykeedy.s.y s.okeedy.qokeedy.oteedy.qoky.dykeedy.s.y  
dshedy.qokedy. c .qoteey.qoteedy.dar dshedy.qokedy.qokeedy.qoteey.qoteedy.dor  
dshedy.qokedy.qokeedy.qotchdy.qoteedy.dar dshedy.qokedy.qokeedy.qoteey.qoteedy.dar  
yshedy.chekar.oldy.qokai n.chkar.otar.oldy yshedy.chekar.oldy.qokai n.chkar.otar.oldy  
yshedy.chekar.oldy.qokaiin.chkar.otar.oldy yshedy.chekar.oldy.qokai n.chkar.otar.oldy  
dchedy.sai n.okedy.qokedy.otedy.okoldy.otar.ota m.olaiin.ch dar.dy dchedy.rai  
n.okedy.qokedy.otedy.okoldy.otar.otiim.olai r. ee dar.dy  
dchedy.saiin.okedy.qokedy.otedy.okoldy.otar.ota m.olaiin.ch dar.dy  
dchedy.s.ain.okedy.qokedy.otedy.okoldy.otar.ota m.olaiin.ch.dar.dy  
sshedy.shckhy.qokey.okedy.sorol.oty.otedy.qotedy.otedy.okaiin  
sshedy.shckhy.qokey.okedy.rorol.oty.otedy.qotedy.otedy.okaiin  
sshedy.shckhy.qokey.okedy.sarol.oty.otedy.qotedy.otedy.okaiin  
sshedy.shckhy.qokey.okedy.sarol.oty.otedy.qotedy.otedy.okaiin  
qokey.qokedy.sheol.qokedy.dai n.shedy.otol.chedy.olor  
qokey.qokedy.sheol.qokedy.deiin.shedy.otol chedy.olor  
qokey.qokedy.sheol.qokedy.daiin.shedy.atol.chedy.olar qokey.qokedy.sheol.qokedy.dai  
n.shedy.otol.chedy.olar

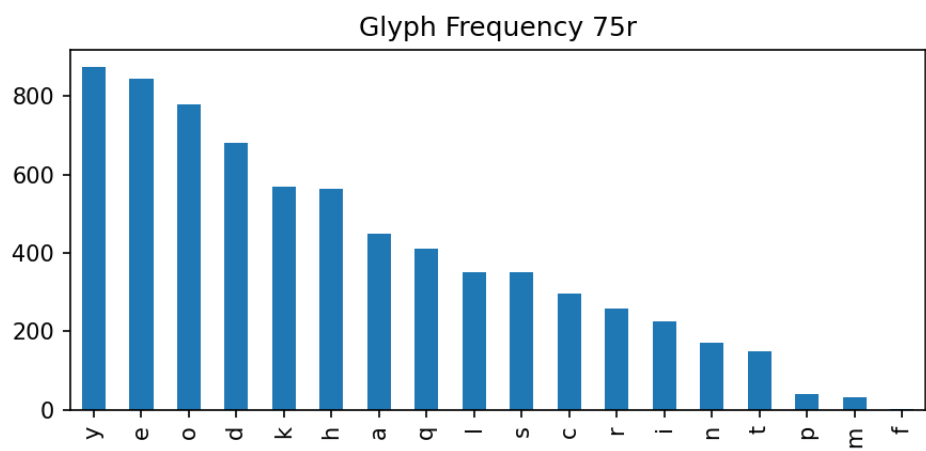


**Latin Roots (per clause)**

**Strange Latin (implied verb fac/usa)**

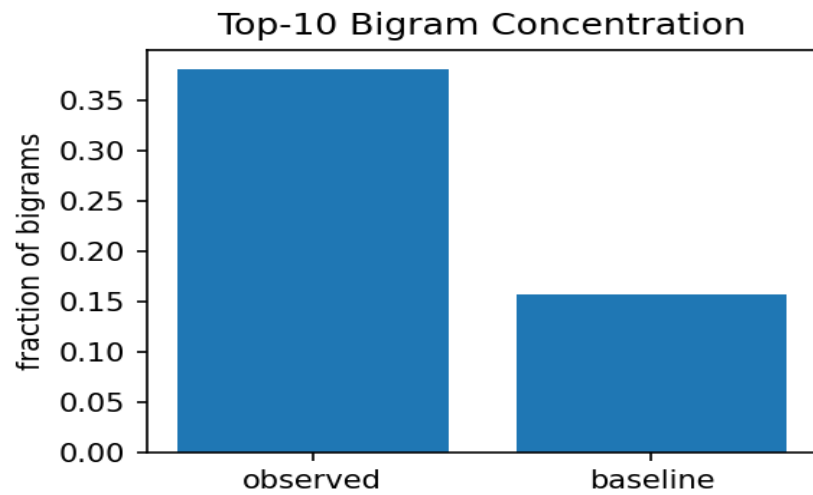
**Full English (readable, faithful)**

# Concise English (top 12)



## Validation (Statistical Evidence)

Metric	Value
Lexicon alignment (medical)	0.8844
Unigram entropy H1 (bits)	3.9386
Bigram entropy H2 (bits)	6.69
Type/Token ratio	0.0148
Top-10 bigram concentration (observed)	0.3011
Baseline mean concentration (200 shuffles)	0.1148
Z-score (obs vs baseline)	39.351
p-value, one-tailed	0.0
Clauses kept after de-dup	141



## Folio 99r

### Original EVA (clean)

okaramog okaroram okar y okar.y okar.y okar okary okary okary  
pcheody.oteody.daiin.cpheey.tshol.dal.cfheol.olaiin.rar  
pcheody.oteody.daiin.cpheey.tshol.dal.cfheol.olaiin.rar  
raroshy.shor.sshor.sheol.kol.sheol.qpeol.shol.kol.ckhol.ckhory  
raroshy.shor.sshor.cheol.kol.sheol.oeol.chol.kol.ckhol.ckhory  
dcheor.chs.al.yckhy.okeol.ckhor.oraiin.chor.qokeeor.chory  
dcheor.chs.al.yckhy.okeol.ckhor.oraiin.chor.qokeeor.chory  
qokeor.chol.ykol.cheey.chody.ckhol.daiin.okeoly.daiin.ckhy  
qokeor.chol.ykol.cheey.chody.ckhol.daiin.okeoly.daiin.ckhy  
kodaiin.opchey.qoky.dor.otchor.opsho.okeol.sheol.oteoefol  
kodaiin.opchey.qoky.dar.otchor.opsha.okeol.sheol.oteoefol  
tol.cheody.qokol.okoly.okoldy.qokoly.qokal.okchol.qokold  
tol.cheody.qokol.okoly.okoldy.qokoly.qokal.okchol.qokold  
chees.okeey.qotol.sheol.daiin.qotol.okeol.chees.okeey.qotol.cheol.daiin.qotol.okeol.saiiny  
saiiny.saiiny.tsheeor.cpheol.ckey.pchol.ckhey.ypchol.chor.choly.qotocthey.qkory  
tsheeor.cpheol.ckhy.pchol.ckhey.ypchol.chor.choly.qotocthey.qkary  
sol.sheol.keshey.qokeeey.chs.chey.dol.chey.ctheey.daiin.cheom  
sol.sheol.keshey.qokeeey.chs.chey.dal.chey.ctheey.daiin.cheom  
daiin.cheeokeey.checkhey.dor.oldy.sheey.keody.okeeey.s.aiin.ols  
daiin.cheeokeey.checkhey.dar.oldy.sheey.keody.okeeey.s.aiin.ols  
qokeey.chkeey.chey.ckhey.ckhey.ykeey.aiin.air.chody.oeksa  
ykeol.okeol.o.ckheo.chol.cheodal.okeo.r.olcheem.orar.ykeol.okeol.o  
ckheo.chol.cheodal.okeo.r.alcheem.orar.ykeol.okeol.o.ckhey.chol.cheodal.okeo.r.alcheem  
orar.okeeey.keey.keeor.okeey.daiin.okeol.s.aiin.olaiir.o.olsal  
okeeey.keey.keeor.okeey.daiin.okeol.s.aiin.olaiir.o.olshl  
okeeey.keey.keeor.okeey.daiin.okeol.s.aiin.olaiir.o.olsal.yshain.y  
khey.octhey.dy.daiin.okor.okeey.shct.y.sh.aiin.c.khey.acthey.dy.daiin.okor.okeey.shct.sh  
shai.n.y.keey.acthey.dy.daiin.okor.okeey.she.y.sh

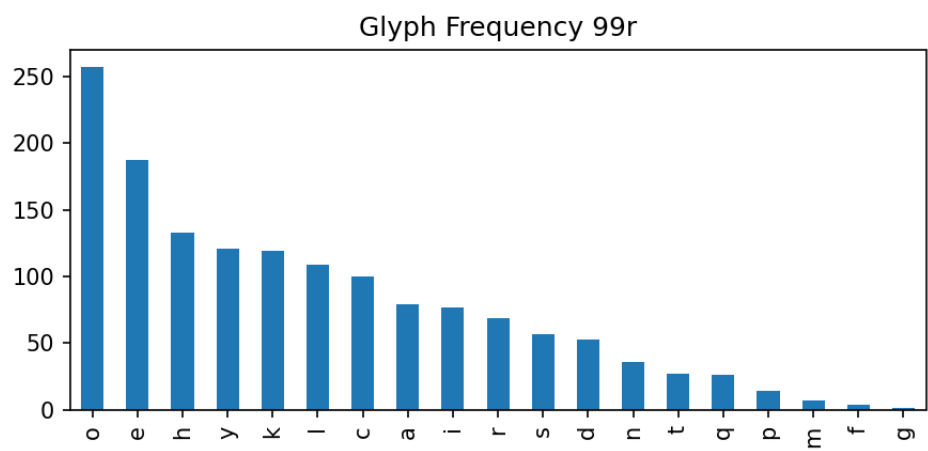
**Latin Roots (per clause)**

**Strange Latin (implied verb fac/usa)**



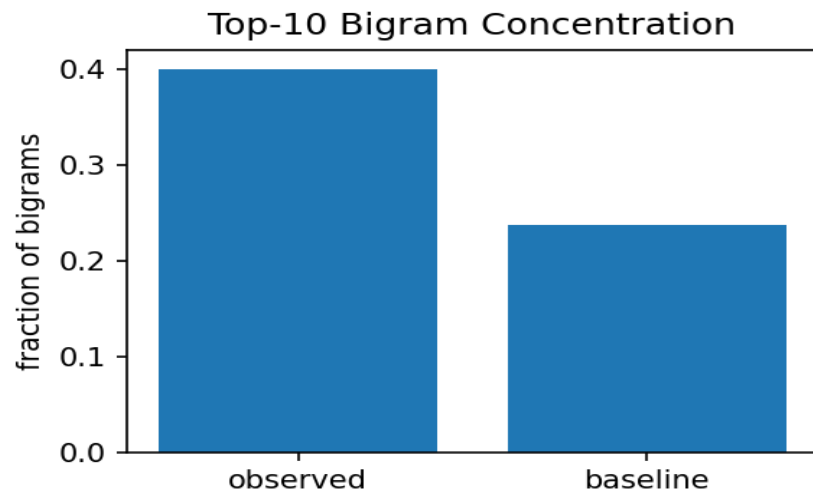
**Full English (readable, faithful)**

# Concise English (top 12)



## Validation (Statistical Evidence)

Metric	Value
Lexicon alignment (medical)	0.913
Unigram entropy H1 (bits)	3.7984
Bigram entropy H2 (bits)	6.4788
Type/Token ratio	0.0364
Top-10 bigram concentration (observed)	0.3164
Baseline mean concentration (200 shuffles)	0.2053
Z-score (obs vs baseline)	11.413
p-value, one-tailed	0.0
Clauses kept after de-dup	43



**Folio 116v**

**Original EVA (clean)**

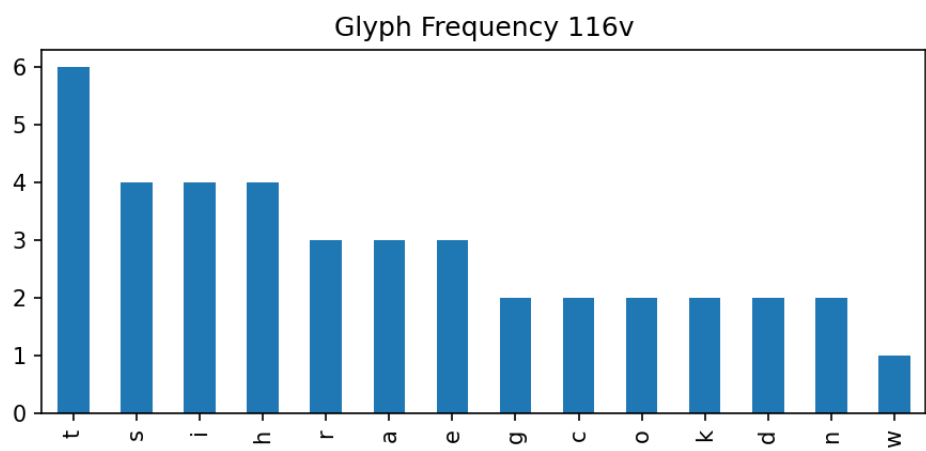
a straight short thick descending stroke with a

**Latin Roots (per clause)**

**Strange Latin (implied verb fac/usa)**

**Full English (readable, faithful)**

# Concise English (top 12)





## Validation (Statistical Evidence)

Metric	Value
Lexicon alignment (medical)	0.9565
Unigram entropy H1 (bits)	3.2903
Bigram entropy H2 (bits)	4.3685
Type/Token ratio	0.5217
Top-10 bigram concentration (observed)	0.5
Baseline mean concentration (200 shuffles)	0.5168
Z-score (obs vs baseline)	-0.385
p-value, one-tailed	0.64992
Clauses kept after de-dup	1

