Erasmus MC Ezafung

SUBSTRATEN

www.erasmusmc.nl/farmacogenetica

2020

CYP1A2	CYP2C9	CYP2C19	CYP2D6	
acencoumarol	acenocoumarol	amitriptyline	amfetamine	gefitinib
amitriptyline	amitriptyline	aprepitant	**amitriptyline**	**haloperidol**
aprepitant	carvedilol	atomoxetine	**aripiprazol**	**imipramine**
caffeine	celecoxib	chlooramfenicol	**atomoxetine**	methadon
clomipramine	dapson	**citalopram**	bisoprolol	metoclopramide
clozapine	diclofenac	claritromycine	**brexpiprazol**	**metoprolol**
domperidon	fenprocoumon	**clomipramine**	carvedilol	mirtazepine
doxepine	**fenytoïne**	**clopidogrel (a)****	**clomipramine**	moclobemide
duloxetine	fluoxetine	clozapine	chloorpromazine	nebivolol
estradiol	fluvastatine	cyclofosfamide (a)	citalopram	**nortriptyline**
flufenazine	glibenclamide	diazepam	clozapine	olanzapine
fluvoxamine	glimepiride	doxepine	cocaïne	ondansetron
haloperidol	ibuprofen	**escitalopram**	**codeïne (a)**	oxycodon
imipramine	indometacine	esomeprazol	dextromethorfan	pantoprazol
lidocaïne	irbesartan	fenobarbital	donepezil	**paroxetine**
melatonine	losartan	fenytoïne	**doxepine**	perfenazine
naproxen	meloxicam	fluoxetine	duloxetine	**pimozide**
nifedipine	naproxen	fluvastatine	escitalopram	promethazine
olanzapine	pantoprazol	hexobarbital	**eliglustat ****	**propafenon**
ondansetron	piroxicam	ibuprofen	**flecaïnide**	propranolol
paracetamol	prasugrel (a)	**imipramine**	flufenazine	risperidon
paroxetine	sertraline	indometacine	fluoxetine	**tamoxifen (a)**
pimozide	sildenafil	**lansoprazol**	flupentixol	**tramadol (a)**
propafenon	tamoxifen	moclobemide	fluvastatine	**venlafaxine**
propranolol	tolbutamide	melatonine	fluvoxamine	**zuclopentixol**
riluzol	valproïnezuur	nilutamide		
ropivacaïne	verapamil	**omeprazol**		
theofylline	voriconazol	**pantoprazol**		
tizanidine	vortioxetine	paroxetine		
verapamil	**warfarine**	prasugrel (a)		
warfarine		primidon		
zolmitriptan		proguanil		
		propranolol		

CYP2B6	CYP2C8
bupropion	chloroquine
cyclofosfamide (a)	fluvastatine
efavirenz	ibuprofen
ifosfamide	nilotinib
methadon	paclitaxel
prasugrel (a)	repaglinide
sertaline	sorafenib
tramadol	verapamil

CYP3A4		
alfentanil	guanfacine	simvastatine (a)
alprazolam	haloperidol	sirolimus
amlodipine	hydrocortison	sorafenib
apixaban	ibuprofen	sunitinib
aprepitant	ifosfamide (a)	tacrolimus
aripiprazol	imatinib	**tamoxifen (a)**
atazanavir	imipramine	temsirolimus
atorvastatine	indinavir	theofylline
bisoprolol	irbesartan	ticagrelor
brexpiprazol	irinotecan	tramadol
buspiron	kinidine	trazodon
caffeine	lansoprazol	venlafaxine
carbamazepine	lercanidipine	verapamil
celecoxib	lidocaïne	vincristine
chloorpromazine	losartan	voriconazol
cisapride	lovastatine (a)	vortioxetine
citalopram	meloxicam	zolpidem
claritromycine	methadon	
clomipramine	midazolam	
clopidogrel	mirtazapine	
clozapine	nifedipine	apixaban
cocaïne	nilotonib	fluoxetine
codeïne	nitrendipine	guanfacine
ciclosporine	omeprazol	midazolam
cyclofosfamide	ondansetron	paroxetine
dapson	oxycodon	**tacrolimus**
dexamethason	paclitaxel	vincristine
dextromethorfan	pantoprazol	vortioxetine
diazepam	paroxetine	
diltiazem	pimozide	
docetaxel	prasugrel (a)	
domperidon	progesteron	
donepezil	proguanil	
doxepine	propafenon	
escitalopram	propranolol	
esomeprazol	quetiapine	
efavirenz	rabeprazol	
eliglustat	repaglinide	
eplerenon	risperidon	
erytromycine	ritonavir	
felodipine	rivaroxaban	
fentanyl	ropivacaine	
fluoxetine	salmeterol	
fluvastatine	saquinavir	
finasteride	sertraline	
gefitinib	sildenafil	

CYP3A5

Overige	
BCHE	**MT-RNR1**
mivacurium	gentamicine
suxamethonium	
articaïne	
cocaïne	
DPYD	**POLG**
5-FU **	valproïnezuur
capecitabine **	
tegafur **	
GADL	**SLCO1B1**
lithium	**simvastatine**
	atorvastatine
HLA-A*3101	methotrexaat
carbamazepine	
HLA-B*44	**TPMT / NUDT15**
ribavirine	**azathioprine ****
	mercaptopurine **
	tioguanine **
HLA-B*1502	**UGT1A1**
carbamazepine	**irinotecan**
fenytoïne	nilotinib
lamotrigine	atazanavir
oxcarbazepine	
HLA-B*1511	**UGT1A4**
carbamazepine	lamotrigine
	olanzapine
HLA-B*5701	
abacavir **	
flucloxacilline	**UGT1A9**
	mycofenolzuur
HLA-B*5801	olanzapine
allopurinol	
IL28B	**VKORC1**
PEG-INF/Ribavirine	**acenocoumarol**
	fenprocoumon
MTHFR	**warfarine**
methotrexaat	

**** Sterk aanbevolen om te testen vóór aanvang therapie**

rood = alternatief (dosis)advies beschikbaar in KNMP-Kennisbank/apotheek

oranje (a) = activatie, alternatief (dosis)advies beschikbaar in KNMP-Kennisbank/apotheek

zwart (a) = activatie, geen aangepast (dosis) advies in KNMP-Kennisbank of (nog) niet beoordeeld (01-01-2020)

blauw = beperkte rol metabolisme

zwart = (nog) niet beoordeeld

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INHIBITOREN

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CYP1A2	CYP2B6	CYP2C8	CYP2C9	CYP2C19
fluvoxamine	thiothepa	gemfibrozil	fluconazol	esomeprazol
ciprofloxacine	ticlopidine			lansoprazol
		trimethoprim	amiodaron	omeprazol
cimetidine				pantoprazol
		glitazonen	fenofibraat	celecoxib
amiodaron		montelukast	fluvastatine	voriconazol
fluoroquinolonen		quercetine	fluvoxamine	chlooramfenicol
furafyline		clopidogrel	isoniazide	cimetidine
interferon			lovastatin	felbamaat
methoxsalen			fenylbutazon	fluoxetine
mibefradil			probenicide	fluvoxamine
ticlopidine			sertraline	cimetidine
			sulfafenazol	ketoconazol
			teniposide	modafinil
			voriconazol	oxcarbazepine
			zafirlukast	probenicide
			disulfiram	ticlopidine
				topiramaat

Erasmus MC Ezafung

INHIBITOREN

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CYP2D6		CYP2E1	CYP3A4 / CYP3A5	
bupropion	difenhydramine	disulfiram	indinavir	amiodaron
cinacalcet	doxepine		nelfinavir	chlooramfenicol
fluoxetine	doxorubicine		ritonavir	boceprevir
paroxetine	escitalopram		claritromycine	ciprofloxacine
kinidine	halofantrine		itraconazol	delaviridine
	histamine H1R antagonisten		ketoconazol	fluvoxamine
duloxetine	hydroxyzine		nefazodon	gestodeen
sertraline	levomepromazine		sanquinavir	imatinib
terbinafine	methadon			mibefradil
	metoclopramide		aprepitant	mifepriston
amiodaron	midodrine		erytromycine	norfloxacine
cimetidine	moclobemide		fluconazol	norfluoxetine
	perfenazine		grapefruitsap	telaprevir
chlorfeniramine	ranitidine		verapamil	voriconazol
chloorpromazine	ritonavir		diltiazem	
citalopram	tripelennamine			grapefruitsap
clemastine	haloperidol		cimetidine	
clomipramine				
cocaïne				
celecoxib				

rood: sterk (AUC >5x hoger of klaring >80% lager); **bruin:** matig (AUC>2x hoger of klaring 50-80% lager); **groen:** zwak (AUC 1.25-2x hoger of klaring 20-50% lager)

INDUCERS

CYP1A2	CYP2B6	CYP2C8	CYP2C9	CYP2C19
insuline	fenobarbital	rifampicine	rifampicine	carbamazepine
methylchloantreen	fenytoïne		carbamazepine	prednison
modafinil	rifampicine		enzalutamide	rifampicine
nafcilline	carbamazepine		fenobarbital	efavirenz
ß-naftoflavon	efavirenz		ritonavir	enzalutamide
omeprazol	nevirapine			ritonavir
carbamazepine				
ritonavir				
roken				

INDUCERS

CYP2D6		CYP2E1	CYP3A4 / CYP3A5	
dexamethason		ethanol	efavirenz	
rifampicine		isoniazide	nevirapine	
			enzalutamide	
			barbituraten	
			carbamazepine	
			glucocorticoïden	
			modafinil	
			oxcarbazepine	
			fenobarbital	
			fenytoïne	
			pioglitazon	
			rifabutine	
			rifampicine	
			troglitazon	
			Sint-janskruid	

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