

LR results December 2007

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The inclusion of patients in the LR project started June 2004 and ended December 2007. From September 2007 on no new patients were included and no new prescriptions validated, so each prescription has at least 3 months follow-up. In December 4094 patients were included, 4072 prescriptions were validated, and 2068 (51%) of these prescriptions had results GHHOS 2-4. GHHOS 2-4 means that there is more result than just an amelioration of the presented complaint and that there are indications for a causal relation between medicine and effect. The result 3 or 4 is given after at least 6 months of follow-up.

Prevalence of symptoms

	mean	median	range
Diarrhoea anticip 2	4.43%	3.71%	0.65 – 8.58%
Diarrhoea anticip 1+2	13.11%		
Fear death 2	3.87%	3.69%	1.23 – 5.34%
Fear death 1+2	10.26%		
Grinding teeth 2	5.33%	6.00%	0.61 – 7.82%
Grinding teeth 1+2	13.28%		
Herpes lips 2	4.99%	4.57%	2.26 – 7.46%
Herpes lips 1+2	16.76%		
Injustice 2	9.26%	5.53%	1.95 – 19.95%
Injustice 1+2	25.41%		
Loquax 2	6.50%	7.07%	2.26 – 11.19%
Loquax 1+2	21.10%		

The distribution of the symptom 'Sensitive to injustice' in 10 practices is rather skew. The symptom was defined as 'Sensitive to injustice leading to actions like turning of tv or writing letters to newspapers and politicians'.

General remarks

- LR values were calculated if there were 2 or more cases with the symptom for that medicine present (category 'a'). Some LR calculations with only one case in category 'a' were added when it concerned a medicine with few cases and result GHHOS 3 or 4. These single cases are interesting, but should be handled with care.
- If the symptom is seen with intensity 2 as well as 1 for the same medicine, this is considered as a confirmation that the symptom indicates the medicine.
- If the result was about the same in January 2007 this was considered as a confirmation (longer follow-up).
- The lower cut-off value for symptoms (e.g. 'Diarrhoea1+2') is meant for exclusion of a medicine. Therefore only (nearly) significant values of LR- are listed.
- These LR values are valid for the chosen intensity; if the intensity of the symptom is stronger, say, the patient has a sensitivity to injustice that is present in only 1%, LR is higher.

Implementing results in the repertory

Diarrhoea from anticipation

Medicines that should be included: **Arg-n., Gels., Ph-ac.,** Staph.

Medicines that should be excluded (included in the original repertory): none

Other possible entries (with question mark): Aloe., Arn., Bell., Calc., Carb-an., Caust., Cimic., Elaps., Merc., Pic-ac.

Fear of death

Medicines that should be included: **Acon., Am-c., Anac.,** arg-n., **Ars.,** Calc., Carc., Ign., Kali-p., Lac-c., Lach., Mag-c., Sep., Verat.

Medicines that should be excluded (included in the original repertory): Med., Merc., Nat-m., Puls., Sulph.

Other possible entries (with question mark): Cench., Gels., Lyc., Naja, Nux-v., Phos., Sil., Tab., Zinc.

Grinding teeth during sleep

Medicines that should be included: *am-m.,* **Bell.,** Calc-m., Calc-p., *Carc., Carc-c-c.,* Cench., *Cocc.,* Ign., Lac-d., *Merc.,* Psor., Puls., Sep., Staph., Thuj.

Medicines that should be excluded (included in the original repertory): Ars.?, Calc.

Other possible entries (with question mark): Am-c., Chel., Cimic., Med., Ph-ac.

Herpes lips

Medicines that should be included: Aloe, Bar-c., Bor., Bry., Caust., Chin., Gels., Lach., Lyc., *Nat-m.,* Rhus-t., Sep., *Staph.,* Stram., Sulph., Thuj.

Medicines that should be excluded (included in the original repertory): Carc.?

Other possible entries (with question mark): Acon., Colch., Ferr-m., Mang., Ruta, Tub.

Sensitive to injustice

Medicines that should be included: Am-m., *Anac.,* Aur., Bell., Bor., Carc., *Carc-c-c.,* *Caust.,* Chin., *Cocc.,* Ign., Kali-bi., Med., Merc., Ph-ac.

Medicines that should be excluded (included in the original repertory): not in original repertory

Other possible entries (with question mark): Aloe, Ant-t., Calc-m., Chin., Cupr., Kali-p., Lyc., Mag-c.

Loquacity

Medicines that should be included: *Ambr.,* Anac., Bell., *Cimic.,* **Hyos., Lach.,** Lyc., Med., Saccha., *Tarent., Verat.*

Medicines that should be excluded (included in the original repertory): Aur., Calc., Caust., *Cocc.,* Cupr., Gels., Nat-m., Nux-v., Sulph.

Other possible entries (with question mark): Calc-m., Dig., Sep.

Lessons for future research

Result and time of follow-up

A small number of LR values were significantly above 1 in January 2007 and insignificant in December 2007, like 'Diarrhoea from anticipation' for Ammonium carbonicum (January: LR=5.87, 1.75 to 19.71) and 'Fear of death' for Conium (January: LR=3.71, 1.02 to 13.55). This was due to longer follow-up. There were 2 Ammonium carbonicum cases with result GHHOS 2 in January, December their status was GHHOS 0 in one case, GHHOS2 in the other. For the 2 Conium cases the results in January were GHHOS 2 and 3, and in December GHHOS 0 and 2.

In this research we are unable to track the date of first prescription of each medicine, because this was not or unclear defined.

Necessary improvements:

1. Definition of time needed to fix results.
2. Adjustment of program specification: Date of first prescription of each medicine in each case.

Specification of symptoms

As expected, the symptom 'Sensitive to injustice' was difficult to handle. You cannot ask patients directly if they are sensitive to injustice. This is a major problem in prospective research. The corroborating criterion 'influencing behaviour' in our research was apparently not clear enough.

Contributors

The doctors participating in this research were Rob Barthels, Hetty Buitelaar, Paul Fruijtjer, Gerard Jansen, Jean Pierre Jansen, Stan Jesmiatka, Christien Klein, Roland Lugten, René van der Reijden, Lex Rutten, Erik Stolper, Janny Verhey and Mechtild Wijdeveld.

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Diarrhoea from anticipation

a = the medicine cured and the symptom is present

b = remainder of the population with the symptom

c = the medicine cured and the symptom is not present

d = remainder of the population without the symptom

So: a+c = number of patients with result GHOS 2-4 for that medicine

Diarrhoea2 = the symptom is strong enough to consider corresponding medicines

If the 95% Confidence Interval (95%CI) is not indicated, LR is not significant

	a	c	b	d	LR+	95% CI	LR-	95%CI
Diarrhoea2	181							
aloe	1	4	180	3909	4.54		0.837	
arg-n	12	14	169	3899	11.10	7,13 to 17,2	0.562	
arn	1	7	180	3906	2.84		0.915	
bell	2	19	179	3894	2.17		0.946	
calc	6	69	175	3844	1.84		0.962	
carb-an	1	1	180	3912	11.40		0.523	
carc	2	41	179	3872	1.05		0.998	
caust	3	43	178	3870	1.48		0.978	
cimic	2	5	179	3908	6.52	2,00 to 21,17	0.747	
elaps	2	6	179	3907	5.71	1,70 to 19,06	0.784	
gels	8	5	173	3908	14.50	9,19 to 22,78	0.402	
lyc	3	83	178	3830	0.79		1.010	
merc	4	50	177	3863	1.69		0.968	
nat-m	5	151	176	3762	0.72		1.013	
ph-ac	7	16	174	3897	7.12	3,76 to 13,39	0.727	
phos	3	73	178	3840	0.89		1.005	
pic-ac	1	2	180	3911	7.58	1,52 to 37,67	0.697	
puls	3	56	178	3857	1.15		0.993	
sep	3	90	178	3823	0.73		1.013	
staph	3	29	178	3884	2.14		0.948	

Diarrhoea1+2	537							
arg-n	17	9	520	3548	5.12		0.397	0,234 to 0,673
gels	8	5	529	3552	4.75		0.442	0,222 to 0,879
ph-ac	12	11	525	3546	4.05		0.549	0,358 to 0,841

Explanation of LR-: if the symptom 'Diarrhoea from anticipation' is not present, the chance that Argentum nitricum (LR=0.397) will cure decreases. The value can be entered in Bayes' formula:

Posterior odds = LR * prior odds*

Suppose you considered arg-n. as one of two possible medicines (p=0.50, odds=1). If 'Diarrhoea from anticipation' is absent posterior odds becomes 0.397. Posterior chance becomes p=0.28 (0.397/1.397). You should now consider arg-n. as one of nearly four possible medicines.

* Odds = chance/(1-chance; chance = odds/(1+odds)

Fear of death

	a	c	b	d	LR+	95% CI	LR-	95%CI
Fear2	158							
acon	4	6	154	3930	10.6	4,87 to 22,93	0.624	
am-c	2	7	156	3929	5.82	1,69 to 19,87	0.809	
anac	5	7	153	3929	11.1	5,57 to 22,02	0.606	
arg-n	2	24	156	3912	2.01		0.960	
ars	6	21	152	3915	5.95	2,88 to 12,2	0.808	
calc	4	71	154	3865	1.39		0.984	
carc	4	39	154	3897	2.45	0,95 to 6,28	0.943	
caust	2	44	156	3892	1.13		0.995	
cench	1	3	157	3933	6.51	1,18 to 35,67	0.780	
gels	1	12	157	3924	2.00		0.960	
ign	3	30	155	3906	2.38		0.945	
kali-p	2	14	156	3922	3.27		0.910	
lac-c	2	6	156	3930	6.55	1,95 to 21,88	0.780	
lach	4	38	154	3898	2.51	0,97 to 6,42	0.941	
lyc	4	82	154	3854	1.21		0.992	
mag-c	2	17	156	3919	2.75		0.930	
naja	1	3	157	3933	6.51	1,18 to 35,67	0.780	
nat-m	3	153	155	3783	0.49	0,16 to 1,51	1.021	
nux-v	2	38	156	3898	1.30		0.988	
phos	4	72	154	3864	1.37		0.985	
puls	2	57	156	3879	0.88		1.005	
sep	6	87	152	3849	1.70		0.972	
sil	2	31	156	3905	1.58		0.977	
sulph	1	87	157	3849	0.29		1.029	
tab	1	2	157	3934	8.69	1,73 to 43,19	0.693	
verat	2	4	156	3932	8.74	2,78 to 27,27	0.693	
zinc	1	3	157	3933	6.51	1,18 to 35,67	0.780	
Fear1+2	420							
acon	5	5	415	3669	4.92		0.557	0,299 to 1,034
anac	5	7	415	3667	4.10		0.649	0,402 to 1,048
ars	9	18	411	3656	3.30		0.742	0,568 to 0,968

Additional data:

Medicine	nr. of cases	fear2	fear1+2
calc-p	28	0	1
med	24	0	1
merc	54	0	0
staph	32	0	1

Considering these data it is unlikely that 'Fear of death' indicates these medicines.

Grinding teeth during sleep

	a	c	b	d	LR+	95%CI	LR-	95%CI
grinding2	219							
am-c	1	8	218	3867	2.08		0.939	
am-m	2	3	217	3872	7.54	2,56 to 22,28	0.634	
arg-n	2	24	217	3851	1.44		0.975	
bell	6	15	213	3860	5.46	2,75 to 10,90	0.754	
calc	3	72	216	3803	0.74		1.015	
calc-m	2	9	217	3866	3.42	0,97 to 12,10	0.864	
calc-p	4	24	215	3851	2.70	1,08 to 6,77	0.905	
carc	7	36	212	3839	3.11	1,56 to 6,22	0.883	
car-c-c	2	7	217	3868	4.18	1,23 to 14,34	0.821	
cench	2	2	217	3873	9.42	3,52 to 25,39	0.528	
chel	1	3	218	3872	4.69		0.792	
cimic	1	6	218	3869	2.68		0.905	
cocc	3	10	216	3865	4.36	1,61 to 11,90	0.812	
ign	4	29	215	3846	2.29	0,91 to 5,81	0.928	
lac-d	2	1	217	3874	12.60		0.352	
med	2	22	217	3853	1.56		0.968	
merc	7	47	212	3828	2.47	1,23 to 5,01	0.919	
nat-m	8	148	211	3727	0.96		1.002	
ph-ac	2	21	217	3854	1.63		0.964	
phos	3	73	216	3802	0.73		1.015	
psor	2	12	217	3863	2.69		0.905	
puls	5	54	214	3821	1.60		0.967	
sep	8	85	211	3790	1.63		0.965	
sil	2	31	217	3844	1.13		0.992	
staph	3	29	216	3846	1.76		0.957	
thuj	3	85	216	3790	0.63		1.021	
tub	2	22	217	3853	1.56		0.968	
grinding1+2	545							
bell	8	13	536	3537	2.89		0.713	0,509 to 0,997
calc-m	5	6	539	3544	3.44		0.628	0,366 to 1,078
cocc	5	8	539	3542	2.91		0.709	0,461 to 1,090
merc	15	39	529	3511	2.12		0.831	0,704 to 0,981

Herpes lips

		a	c	b	d	LR+	95% CI	LR-	95% CI
Herpes2	205								
acon		1	9	204	3880	2.00		0.947	
aloe		2	3	203	3886	8.06	2,74 to 23,83	0.631	
bar-c		2	9	203	3880	3.66		0.861	
bor		2	3	203	3886	8.06		0.631	
bry		2	11	203	3878	3.09		0.890	
calc		3	72	202	3817	0.80		1.011	
carc		2	41	203	3848	0.93		1.004	
caust		6	40	199	3849	2.65	1,27 to 5,68	0.915	
chin		2	12	203	3877	2.87		0.902	
colch		1	3	204	3886	5.01		0.789	
ferr-m		1	6	204	3883	2.86		0.902	
gels		2	11	203	3878	3.09		0.890	
hyos		1	14	204	3875	1.33		0.982	
lach		4	38	201	3851	1.92		0.952	
lyc		8	78	197	3811	1.89		0.954	
mang		1	2	204	3887	6.68		0.702	
merc		3	51	202	3838	1.11		0.994	
nat-m		24	132	181	3757	3.35	2,26 to 4,98	0.887	
phos		2	74	203	3815	0.52		1.025	
puls		2	57	203	3832	0.67		1.017	
rhus-t		2	17	203	3872	2.11		0.942	
ruta		1	4	204	3885	4.01		0.842	
sep		10	83	195	3806	2.21	1,21 to 4,04	0.938	
sil		3	30	202	3859	1.83		0.957	
staph		5	27	200	3862	3.17	1,41 to 7,20	0.887	
stram		2	7	203	3882	4.47	1,31 to 15,33	0.818	
sulph		6	82	199	3807	1.37		0.981	
thuj		2	22	203	3867	1.67		0.965	
tub		1	15	204	3874	1.25		0.987	
Herpes1+2	688								
nat-m		44	112	644	3294	1.72		0.858	0,777 to 0,947
staph		11	21	677	3385	2.06		0.788	0,612 to 1,012

Sensitive to injustice

	a	c	b	d	LR+	95%CI	LR-	95%CI
Injustice2	379							
aloe	1	4	378	3711	2.16		0.881	
ambr	2	6	377	3709	2.71		0.826	
am-m	2	3	377	3712	4.34	1,48 to 12,75	0.661	
anac	6	6	373	3709	5.47	3,08 to 9,72	0.550	
ant-t	1	2	378	3713	3.61		0.735	
ars	2	25	377	3690	0.80		1.021	
aur	2	11	377	3704	1.67		0.932	
bell	4	17	375	3698	2.07		0.892	
bor	2	3	377	3712	4.34	1,48 to 12,75	0.661	
calc	7	68	372	3647	1.01		0.999	
calc-m	2	9	377	3706	1.97		0.901	
carc	9	34	370	3681	2.29	1,27 to 4,13	0.870	
car-c-c	4	5	375	3710	4.84	2,32 to 10,12	0.612	
caust	18	28	361	3687	4.39	3,02 to 6,38	0.668	
chin	2	12	377	3703	1.55		0.944	
cocc	5	8	374	3707	4.20	2,10 to 8,40	0.677	
cupr	2	11	377	3704	1.67		0.932	
ign	6	27	373	3688	1.98	0,95 to 4,11	0.901	
kali-bi	2	12	377	3703	1.55		0.944	
kali-p	2	14	377	3701	1.35		0.964	
lach	3	39	376	3676	0.77		1.024	
lyc	9	77	370	3638	1.13		0.986	
mag-c	2	17	377	3698	1.14		0.986	
mag-m	2	19	377	3696	1.03		0.997	
med	5	19	374	3696	2.27	1,03 to 4,98	0.872	
merc	7	47	372	3668	1.41		0.959	
nat-m	15	141	364	3574	1.04		0.996	
nux-v	3	37	376	3678	0.81		1.020	
ph-ac	4	19	375	3696	1.89		0.910	
phos	6	70	373	3645	0.85		1.015	
puls	5	54	374	3661	0.91		1.009	
sep	7	86	372	3629	0.81		1.020	
sil	2	31	377	3684	0.65		1.036	
staph	3	29	376	3686	1.01		0.999	
sulph	6	82	373	3633	0.73		1.027	
thuj	2	22	377	3693	0.90		1.010	
Injustice1+2	1040							
car-c-c	7	2	1033	3052	3.08		0.297	0,088 to 1,010
caust	30	16	1010	3038	2.61		0.463	0,312 to 0,689

Loquacity

	a	c	b	d	LR+	95%CI	LR-	95% CI
Loquax2	267							
ambr	3	5	264	3822	5.80	2,36 to 14,35	0.668	
anac	2	10	265	3817	2.57		0.891	
bell	4	17	263	3810	2.95	1,22 to 7,20	0.865	
calc	2	73	265	3754	0.40		1.042	
calc-m	2	9	265	3818	2.80		0.875	
caust	3	43	264	3784	1.00		1.000	
cimic	2	5	265	3822	4.41	1,36 to 14,34	0.764	
dig	2	1	265	3826	10.30	4,60 to 23,16	0.356	
hyos	5	10	262	3817	5.19	2,52 to 10,75	0.712	
lach	14	28	253	3799	5.34	3,43 to 8,35	0.711	
lyc	9	77	258	3750	1.63		0.957	
med	3	21	264	3806	1.93		0.936	
merc	4	50	263	3777	1.14		0.990	
mag-m	1	20	266	3807	0.73		1.019	
nat-m	4	152	263	3675	0.38		1.044	
nux-v	2	38	265	3789	0.76		1.016	
phos	4	72	263	3755	0.80		1.014	
puls	2	57	265	3770	0.52		1.034	
saccha	2	5	265	3822	4.41	1,36 to 14,34	0.764	
sep	8	85	259	3742	1.33		0.977	
stram	2	7	265	3820	3.43	1,01 to 11,73	0.832	
sulph	4	84	263	3743	0.69		1.022	
tarent	2	6	265	3821	3.85	1,16 to 12,91	0.802	
tub	2	14	265	3813	1.92		0.936	
verat	3	3	264	3824	7.74	3,46 to 17,43	0.535	
Loquax1+2	865							
bell	8	13	857	3216	1.81		0.784	0,560 to 1,097
hyos	8	7	857	3222	2.54		0.591	0,344 to 1,015
lach	23	19	842	3210	2.64		0.571	0,409 to 0,796

Additional data:

Medicine	nr. of cases	loquax2	loquax1+2
aur	13	0	2
carc	43	0	6
cocc	13	0	2
cupr	13	0	1
gels	13	0	2
nat-c	8	0	0