

**PKU-controls RIVM
survey 2012/3**

diverse controle's

Specimen nr	B436	B437	B438	B439	B440 Method	Remarks	controle inzender	controle ronde	lot kit	lot calibrator	method
Nominal mmol/l blood	114	164	264	464	864						
Amsterdam	117	149	220	438	761 MS/MS PE underivatized		Amsterdam	2012/3	617084	AA: 615965	MSMS, neobase
Bilthoven	120	180	261	427	1016 MS/MS PE underivatized		Bilthoven	2012/3	617048	615965	Neobase underivatized
Capelle	106	167	262	433	872 MS/MS PE underivatized		Capelle	2012/3	617084	615965AA	PE Neobase Non Deri.
Tilburg	105	163	276	548	809 MS/MS PE underivatized		Tilburg	2012/3	617084	65 AC615797	MS/MS
Zwolle	111	157	252	464	793 MS/MS PE underivatized		Zwolle	2012/3	617084	615965	MS/MS PE Underivatized
Antwerpen	108	159	264	451	844 MS/MS PE underivatized		Antwerpen	2012/3	61 70 84	61 59 65	NEOBASE
Brussel ULB	94	134	213	354	725 MS/MS Derivatized		Brussel ULB	2012/3	0	0	MS/MS + derivatisation
Brussel UCL	88	113	190	349	659 MS/MS Derivatized		Brussel UCL	2012/3	0	0	MSMS derivatized - non kit
Liege	103	150	229	424	764 MS/MS Derivatized		Liege	2012/3	0	0	Chromsystems MSMS derivatized Kit
Luxembourg	112	171	265	441	915 MS/MS PE underivatized		Luxembourg	2012/3	617084	615965	MSMS nonderivatised
Bio-Rad	133	190	286	510	977 Quantase		Bio-rad	2012/3	0	1772	0
Perkin Elmer	101	153	163	394	695 Victor-Delfia		Perkin Elmer	2012/3	617073	0	Fluorometric
CDC	--	--	--	--	--		CDC	2012/3	0	0	0
Izmir	98	157	275	473	913 Biochrom AA		Izmir	2012/3	Biochrom		Sigma Biochrom AAA
x	107	157	243	439	826						
cv %	10	12	15	12	13						

observed/expected (%)	B436	B437	B438	B439	B440	mean	Remarks
Amsterdam	103	91	83	94	88	92	
Bilthoven	105	110	99	92	118	105	
Capelle	93	102	99	93	101	98	
Tilburg	92	99	105	118	94	102	
Zwolle	97	96	95	100	92	96	
Antwerpen	95	97	100	97	98	97	
Brussel ULB	82	82	81	76	84	81	
Brussel UCL	77	69	72	75	76	74	
Liege	90	91	87	91	88	90	
Luxembourg	98	104	100	95	106	101	
Bio-Rad	117	116	108	110	113	113	
Perkin Elmer	89	93	62	85	80	82	
CDC	--	--	--	--	--	--	
Izmir	86	96	104	102	106	99	

Classification

Specimen nr	B436	B437	B438	B439	B440	Remarks
Amsterdam	1	1	2	3	3	
Bilthoven	1	1	2	3	3	
Capelle	1	1	2	3	3	
Tilburg	1	1	2	3	3	
Zwolle	1	1	2	3	3	
Antwerpen	1	1	2	2	3	
Brussel ULB	1	1	3	3	3	
Brussel UCL	1	1	2	3	3	
Liège	1	2	3	3	3	
Luxembourg	1	1	2	3	3	
Bio-Rad	1	2	3	3	3	
Perkin Elmer	--	--	--	--	--	
CDC	--	--	--	--	--	
Izmir	1	2	2	3	3	

Key for classification
 1=negative
 2=PKU possible
 3=PKU probable

expected classifications with measured concentrations

B436	B437	B438	B439	B440
1	1	2	3	3
1	1	2	3	3
1	1	2	3	3
1	1	2	3	3
1	1	2	3	3
1	1	2	3	3
1	1	2	2	3
1	1	1	2	3
1	1	2	3	3
1	1	2	3	3
1	1	2	3	3
1	1	1	2	3
1	1	1	2	3
--	--	--	--	--
1	1	2	3	3

Action

Specimen nr	B436	B437	B438	B439	B440	Remarks
Amsterdam	1	1	5	6	6	
Bilthoven	1	1	5	6	6	
Capelle	1	1	5	6	6	
Tilburg	1	1	5	6	6	
Zwolle	1	1	5	6	6	
Antwerpen	1	1	5	6	6	
Brussel ULB	1	1	5	6	6	
Brussel UCL	1	1	5	6	6	
Liège	1	6	6	6	6	
Luxembourg	1	1	5	6	6	
Bio-Rad	--	--	--	--	--	
Perkin Elmer	--	--	--	--	--	
CDC	--	--	--	--	--	
Izmir	1	5	5	6	6	

Key for action:
 1=none
 4=repeat analysis in same scdccimen
 5=request for second scdccimen
 6=referral to paediatrician

expected actions with measured concentrations

B436	B437	B438	B439	B440
1	1	5	6	6
1	1	5	6	6
1	1	5	6	6
1	1	5	6	6
1	1	5	6	6
1	1	5	6	6
1	1	5	5	6
1	1	1	5	6
1	1	5	6	6
1	1	5	6	6
1	1	5	6	6
1	1	1	5	6
1	1	5	6	6
--	--	--	--	--
1	1	5	6	6

T4-TBG-controls RIVM survey 2012/3

Specimen nr	B436	B437	B438	B439	B440	Method	Remarks
Nominal T4 nmol/l blood	18	36	54	72	90		
Amsterdam	14	26	48	60	63	AutoDelfia	
Bilthoven	12	30	51	69	85	AutoDelfia	
Capelle	11	24	43	64	84	AutoDelfia	
Tilburg	16	32	48	63	81	AutoDelfia	
Zwolle	11	30	47	70	78	AutoDelfia	
Brussel ULB	-	-	-	-	-	AutoDelfia	
CDC	15	35	47	79	83	PerkinElmer Delfia	
Bio-rad	--	--	--	--	--	Quantase	
Perkin Elmer	13	27	44	69	76	AutoDelfia	
Izmir	--	--	--	--	--	Neogenesis	
x	13	29	47	68	79		
sd	2	3	2	6	7		
vc %	14	12	5	8	9		

observed/expected (%)	B436	B437	B438	B439	B440	mean	Remarks
Amsterdam	--	72	89	83	70	79	
Bilthoven	--	83	94	96	94	92	
Capelle	--	67	80	89	93	82	
Tilburg	--	89	89	88	90	89	
Zwolle	--	83	87	97	87	89	
Brussel ULB	--	--	--	--	--	--	
CDC	--	97	88	109	93	97	
Bio-rad	--	--	--	--	--	--	
Perkin Elmer	--	74	82	96	84	84	
Izmir	--	--	--	--	--	--	

SD-value

	B436	B437	B438	B439	B440	Remarks
Amsterdam	-3.7	-3.1	-1.8	0.0	0.2	
Bilthoven	-3.9	-3.0	-1.9	-0.9	-0.1	
Capelle	-4.0	-3.3	-2.3	-1.2	-0.1	
Tilburg	-3.7	-2.9	-2.1	-1.3	-0.4	
Zwolle	-4.0	-2.9	-2.0	-0.8	-0.4	

Classification based on T4

	B436	B437	B438	B439	B440	Remarks
Amsterdam	3	3	4	1	1	
Bilthoven	4	4	4	1	1	
Capelle	4	4	4	1	1	
Tilburg	3	4	4	4	1	
Zwolle	4	4	4	1	1	
Brussel ULB	-	-	-	-	-	

Key for classification:

- 1=negative
- 2=CHT possible
- 3=CHT probable
- 4=no conclusion (yet)
- 5=not relevant

diverse controle's

controle inzender	controle ronde	lot kit	lot calibrator	method
Amsterdam	2012/3	617203	615493	AD
Bilthoven	2012/3	617538	616896	GSP
Capelle	2012/3	617642	615493	AutoDelfia
Tilburg	2012/3	618182	617667	GSP
Zwolle	2012/3	616015	614239	AutoDelfia
Brussel ULB	2012/3	-	-	-
CDC	2012/3	617947		kit Perkin Elmer GSP
Bio-rad	2012/3	0	0	0
Perkin Elmer	2012/3	618998		0 AutoDELFLIA
Izmir	24-Sep-12	0		0 0

expected classifications with measured concentrations				
B436	B437	B438	B439	B440
3	3	4	1	1
3	3	4	1	1
3	3	4	1	1
3	4	4	1	1
3	4	4	1	1

	Action based on T4					Remarks
	B436	B437	B438	B439	B440	
Amsterdam	4	4	3	1	1	
Bilthoven	3	3	3	2	1	
Capelle	3	3	3	1	1	
Tilburg	4	3	3	2	1	
Zwolle	3	3	3	2	1	
Brussel ULB	-	-	-	-	-	

Key for action:

- 1=none
- 2=TSH-analysis
- 3=TSH- + TBG-analysis
- 4=TSH- + TBG-analysis + referral
- 5=request for 2nd specimen
- 6=referral to paediatrician

expected actions wrt measured concentrations					
B436	B437	B438	B439	B440	
4	4	3	1	1	
4	4	3	2	1	
4	4	3	2	1	
4	3	3	2	1	
4	3	3	2	1	

Tabel 11 (continued)

Specimen nr	B436	B437	B438	B439	B440	Method	Remarks
Nominal TBG nmol/l serum	0	51	101	202	405		
Amsterdam	<20	43	70	100	197	Accubind	
Bilthoven	<20	76	148	306	500	Accubind	
Capelle	11	45	102	211	341	Accubind	
Tilburg	20	36	95	217	474	Accubind	
Zwolle	20	49	104	212	387	Accubind	

observed/expected (%)						mean	Remarks
Amsterdam	--	85	69	50	49	63	
Bilthoven	--	150	147	151	123	143	
Capelle	--	89	101	104	84	95	
Tilburg	--	71	94	107	117	97	
Zwolle	--	97	103	105	96	100	

T4/TBG ratio	B436	B437	B438	B439	B440	
Amsterdam	70.0	46.5	47.1	51.0	26.9	
Bilthoven	>60	27.6	21.6	---	---	
Capelle	100.0	40.0	27.4	-	-	
Tilburg	70.0	61.1	31.6	-	-	
Zwolle	55.0	44.9	29.8	20.3	12.1	

	Classification based on T4/TBG ratio					Remarks
Amsterdam	1	1	1	--	--	
Bilthoven	1	5	1	---	---	
Capelle	1	1	1	-	-	
Tilburg	5	1	1	-	-	
Zwolle	5	1	1	5	5	

	Action based on T4/TBG ratio					Remarks
Amsterdam	1	1	1	--	--	
Bilthoven	1	1	1	---	---	
Capelle	1	6	1	-	-	
Tilburg	1	1	1	-	-	
Zwolle	1	1	1	1	1	

expected classifications wrt measured concentrations					
B436	B437	B438	B439	B440	
5	5	1	5	5	
5	5	1	5	5	
5	5	1	5	5	
5	1	1	5	5	
5	1	1	5	5	

expected actions wrt measured concentrations					
B436	B437	B438	B439	B440	
1	1	1	1	1	
1	1	1	1	1	
1	1	1	1	1	
1	1	1	1	1	
1	1	1	1	1	

OHP-controls RIVM survey 2012/3

Specimen nr	B436	B437	B438	B439	B440	Method	Remarks
Nominal nmol/l blood	14	27	52	102	302		
Amsterdam	9	18	34	72	190	AutoDelfia	
Bilthoven	11	18	40	82	250	AutoDelfia	
Capelle	10	19	36	77	266	AutoDelfia	
Tilburg	8	19	43	83	197	AutoDelfia	
Zwolle	10	24	38	72	264	AutoDelfia	
Antwerpen	9	21	41	80	256	AutoDelfia	
Brussel ULB	9	15	39	81	256	AutoDelfia	
Brussel UCL	--	--	--	--	--		
Liege	13	25	30	94	299	ELISA home made	
Luxembourg	10	21	41	82	247	AutoDelfia	
Bio-rad	18	28	64	132	285	Quantase	
Perkin Elmer	8	21	42	79	238	AutoDelfia	
CDC	--	--	--	--	--	AutoDelfia	
Izmir	12	22	46	89	204	Neogenesis	
x	11	21	41	85	246		
sd	2.7	3.3	8.0	15.3	32.5		
cv %	25	16	20	18	13		

diverse controle's

controle inzender	controle ronde	lot kit	lot calibrator	method
Amsterdam	2012/3	617343	616723	AD
Bilthoven	2012/3	617598	616454	GSP
Capelle	2012/3	618071	617380	AutoDelfia
Tilburg	2012/3	616470	615582	GSP
Zwolle	2012/3	616044	615214	AutoDelfia
Antwerpen	2012/3	61 81 64	61 68 71	GSP
Brussel ULB	2012/3	616526	616594	autodelphia
Brussel UCL	2012/3	0	0	0
Liege	2012/3	0	0	ELISA HomeMade
Luxembourg	2012/3	617348	616723	AutoDelfia
Bio-rad	2012/3	128	0	0
Perkin Elmer	2012/3	619112	0	AutoDELFLIA
CDC	2012/3	0	0	0
Izmir	2012/3	0	0	Neogenesis

observed/expected (%)	B436	B437	B438	B439	B440	mean	Remarks
Amsterdam	64	68	66	71	63	66	
Bilthoven	79	68	78	81	83	78	
Capelle	71	72	70	76	88	75	
Tilburg	57	72	83	82	65	72	
Zwolle	71	91	74	71	88	79	
Antwerpen	64	79	80	79	85	77	
Brussel ULB	61	57	75	80	85	72	
Brussel UCL	--	--	--	--	--	--	
Liege	93	94	58	93	99	87	
Luxembourg	74	77	79	80	82	78	
Bio-rad	129	106	124	130	95	117	
Perkin Elmer	59	81	82	78	79	76	
CDC	--	--	--	--	--	--	
Izmir	86	82	89	87	68	82	

Classification

Specimen nr	B436	B437	B438	B439	B440	Remarks
Amsterdam	1	1	2	3	3	
Bilthoven	1	1	2	3	3	
Capelle	1	1	2	3	3	
Tilburg	1	1	2	3	3	
Zwolle	1	1	2	3	3	
Antwerpen	1	1	3	3	3	
Brussel ULB	1	1	2	3	3	
Brussel UCL	--	--	--	--	--	
Liège	1	1	1	3	3	
Luxembourg	1	1	3	3	3	
Bio-rad	1	1	2	3	3	
Perkin Elmer	--	--	--	--	--	
CDC	--	--	--	--	--	
Izmir	1	1	3	3	3	

Key for classification
 1=negative
 2=CAH possible
 3=CAH probable

expected classifications with measured concentrations					
B436	B437	B438	B439	B440	
1	1	2	3	3	
1	1	2	3	3	
1	1	2	3	3	
1	1	2	3	3	
1	1	2	3	3	
1	1	2	3	3	
1	1	2	3	3	
--	--	--	--	--	
1	2	2	3	3	
1	1	2	3	3	
1	2	3	3	3	
1	1	2	3	3	
1	1	2	3	3	
1	1	2	3	3	