

# T4-TBG-controls RIVM survey 2013/1

Specimen nr	B446	B447	B448	B449	B450	Method	Remarks
Nominal T4 nmol/l bloo	18	150	0	63	36		
Amsterdam	10	125	10	44	24	AutoDelfia	
Bilthoven	15	160	2	65	34	AutoDelfia	
Capelle	14	148	<5	58	33	AutoDelfia	
Tilburg	13	161	1	54	35	GSP	
Zwolle	16	142	5	62	30	AutoDelfia	
Brussel ULB	--	--	--	--	--	AutoDelfia	
CDC	14	140	1	52	36	PerkinElmer Delfia	
Bio-rad	--	--	--	--	--	Quantase	
Perkin Elmer	--	--	--	--	--	AutoDelfia	
Izmir	6	105	6	52	17	Neogenesis	Data amended_23.09.2013PS
x	14	146	4	56	32		
sd	2	12	3	7	4		
vc %	14	8	93	12	12		

observed/expected (%)	B446	B447	B448	B449	B450	mean	Remarks
Amsterdam	--	83	--	70	67	73	
Bilthoven	--	107	--	103	94	101	
Capelle	--	99	--	92	92	94	
Tilburg	--	107	--	86	96	97	
Zwolle	--	95	--	98	83	92	
Brussel ULB	--	--	--	--	--	--	
CDC	--	93	--	82	99	92	
Bio-rad	--	--	--	--	--	--	
Perkin Elmer	--	--	--	--	--	--	
Izmir	--	70	--	83	48	67	

### SD-value

	B446	B447	B448	B449	B450	Remarks
Amsterdam	-4.0	2.2	-4.0	-2.2	-3.3	
Bilthoven	-3.9	3.0	-4.4	-1.5	-3.0	
Capelle	-3.8	3.3	<-4.3	-1.5	-2.8	
Tilburg	-3.9	3.1	-4.5	-1.9	-2.9	
Zwolle	-3.7	2.8	-4.3	-1.4	-3.0	

### Classification based on T4

	B446	B447	B448	B449	B450	Remarks
Amsterdam	3	1	3	4	3	
Bilthoven	4	1	4	1	4	
Capelle	4	1	4	1	4	
Tilburg	3	1	3	4	4	
Zwolle	3	1	3	1	3	
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	2013/1	620246	619779	AD
Bilthoven	2013/1	621665	621101	GSP
Capelle	2013/1	623265	621101	GSP Perkinelmer
Tilburg	2013/1	619295	619123	GSP
Zwolle	2013/1	622145	619598	Auto Delfia
Brussel ULB	2013/1	0	00/01/1900	0
CDC	2013/1	621081	619953	PerkinElmer GSP
0	0	0	0	0
0	0	0	0	0
Izmir	2013/1	0	0	0

expected classifications with measured concentrations					
B446	B447	B448	B449	B450	
3	1	3	4	3	
3	1	3	1	3	
3	1	3	1	4	
3	1	3	4	4	
3	1	3	1	3	

Action based on T4

	B446	B447	B448	B449	B450	Remarks
Amsterdam	4	1	4	3	4	
Bilthoven	3	1	3	1	3	
Capelle	3	1	3	2	3	
Tilburg	6	1	6	3	3	
Zwolle	4	1	4	2	4	
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				
B446	B447	B448	B449	B450
4	1	4	3	4
4	1	4	2	4
4	1	4	2	3
4	1	4	3	3
4	1	4	2	4

Tabel 11 (continued)

Specimen nr	B446	B447	B448	B449	B450	Method	Remarks
Nominal TBG nmol/l se	34	51	68	540	135		
Amsterdam	58	74	99	>500	153	Dynabio	General remark-please note in future rounds to adequately report method (most probably Dynabio NN-TBG kit) and lotno.
Bilthoven	47	55	53	458	146	Dynabio	
Capelle	44	78	95	542	361-143	Dynabio	
Tilburg	32	21	56	625	136	Dynabio	
Zwolle	48	39	51	>500	141	Dynabio	

observed/expected (%)						mean	Remarks
Amsterdam	--	146	147	--	113	135	
Bilthoven	--	109	79	85	108	95	
Capelle	--	154	141	100	--	132	
Tilburg	--	42	83	116	101	85	
Zwolle	--	77	76	--	104	86	

T4/TBG ratio					
Amsterdam	19.0	98.6	11.1	5.8	11.8
Bilthoven	25.5	-	13.2	-	14.4
Capelle	30.0	--	<10	--	6.4-16.1
Tilburg	37.5	-	10.7	5.1	16.2
Zwolle	29.2	xx	15.7	7.4	14.9

Classification based on T4/TBG ratio

						Remarks
Amsterdam	5	--	5	2	5	
Bilthoven	3	-	3	-	3	
Capelle	3	--	3	--	2-2	
Tilburg	5	-	5	2	2	
Zwolle	5	5	5	5	5	

Action based on T4/TBG ratio

						Remarks
Amsterdam	1	--	1	5	1	
Bilthoven	6	-	6	-	6	
Capelle	6	--	6	--	5-5	
Tilburg	1	-	1	5	5	
Zwolle	1	1	1	1	1	

expected classifications wrt measured concentrations				
B446	B447	B448	B449	B450
5	5	5	2	5
5	5	5	5	5
5	5	5	5	1
5	5	5	2	2
5	5	5	5	5

expected actions wrt measured concentrations				
B446	B447	B448	B449	B450
1	1	1	5	1
1	1	1	1	1
1	1	1	1	1
1	1	1	5	5
1	1	1	1	1

## TSH-controls RIVM survey 2013/1

Specimen nr	B446	B447	B448	B449	B450	Method	Remarks
Nominal mIU/l blood	40	0	0	16	27		
Amsterdam	41	1	1	15	31	BRAHMS	
Bilthoven	47	--	--	19	31	AutoDelfia	
Capelle	47	<1	<1	--	30	AutoDelfia	
Tilburg	41	1	1	19	30	GSP	
Zwolle	40	<1	<1	15	27	AutoDelfia	
Antwerpen	36	--	--	14	25	GSP	
Brussel ULB	36	--	--	14	25	AutoDelfia	
Brussel UCL	36	--	--	16	25	BioRad Quantase	
Liege	43	1	2	23	30	ELISA home made	
Luxembourg	--	--	--	--	--	AutoDelfia	
Bio-rad	--	--	--	--	--	Quantase	
Perkin Elmer	--	--	--	--	--	AutoDelfia	
CDC	38	0	0	13	23	Delfia	
Izmir	40	5	1	16	23	Neogenesis	
x	40.4	1.7	1.1	16.4	27.2		
sd	4	2	1	3	3		
cv %	9	108	49	17	11		

observed/expected (%)	B446	B447	B448	B449	B450	mean	Remarks
Amsterdam	103	--	--	94	115	104	
Bilthoven	118	--	--	119	115	117	
Capelle	118	--	--	--	111	114	
Tilburg	103	--	--	118	109	110	
Zwolle	100	--	--	94	100	98	
Antwerpen	91	--	--	90	93	91	
Brussel ULB	91	--	--	90	93	91	
Brussel UCL	89	--	--	98	93	93	
Liege	107	--	--	143	112	120	
Luxembourg	--	--	--	--	--	--	
Bio-rad	--	--	--	--	--	--	
Perkin Elmer	--	--	--	--	--	--	
CDC	94	--	--	83	84	87	
Izmir	101	--	--	100	85	95	

### diverse controle's

controle inzender	controle ronde	lot kit	lot calibrator	method
Amsterdam	2013/1	eigen	0	Brahms
Bilthoven	2013/1	622453	621254	GSP
Capelle	2013/1	622902	622647	GSP Perkinelmer
Tilburg	2013/1	620519	620125	GSP
Zwolle	2013/1	621963	615122	Auto delfia
Brussel ULB	2013/1	620351	620224	autodelfia
Brussel ULB	2013/1	620351	10/02/3598	autodelfia
Brussel UCL	2013/1	196	0	Biorad Quantase
Liege	2013/1	0	0	ELISA home-made
		0	0	0
		0	0	0
		0	0	0
CDC	2013/1	622720	622205	PerkinElmer GSP
Izmir	2013/1	0	0	0

Specimen nr	Classification					Remarks
	B446	B447	B448	B449	B450	
Amsterdam	3	1	1	2	3	
Bilthoven	3	1	1	2	3	
Capelle	3	1	1	--	3	
Tilburg	3	1	1	2	3	
Zwolle	3	1	1	2	3	
Antwerpen	3	1	1	1	3	
Brussel ULB	3	1	1	1	3	
Brussel UCL	3	1	1	2	3	
Liège	3	1	1	2	3	
Luxembourg	--	--	--	--	--	
Bio-rad	--	--	--	--	--	
Wallac	--	--	--	--	--	
CDC	3	1	1	3	3	
Izmir	3	1	1	2	3	

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

Specimen nr	Action (based only on TSH)					Remarks
	B446	B447	B448	B449	B450	
Amsterdam	6	1	1	5	6	
Bilthoven	6	1	1	5	6	
Capelle	6	1	1	--	6	
Tilburg	6	1	1	5	6	
Zwolle	6	1	1	5	6	
Antwerpen	6	1	1	1	5	
Brussel ULB	6	1	1	1	5	
Brussel UCL	6	1	1	5	6	
Liège	6	1	1	5	5	
Luxembourg	--	--	--	--	--	
Bio-rad	--	--	--	--	--	
Perkin Elmer	--	--	--	--	--	
CDC	--	--	--	--	--	
Izmir	6	1	1	5	5	

Key for action  
 1=none  
 4=repeat analysis in same specimen  
 5=request for 2nd specimen  
 6=referral to paediatrician  
 7=T4-analysis

expected classifications with measured concentrations					
B446	B447	B448	B449	B450	
3	1	1	2	3	
3	--	--	2	3	
3	1	1	--	3	
3	1	1	2	3	
3	1	1	2	3	
3	--	--	2	3	
3	--	--	2	3	
3	--	--	2	3	
3	1	1	3	3	
--	--	--	--	--	
--	--	--	--	--	
--	--	--	--	--	
3	1	1	2	3	
3	1	1	2	3	

expected actions wrt measured concentrations					
B446	B447	B448	B449	B450	
6	1	1	5	6	
6	--	--	5	6	
6	1	1	--	6	
6	1	1	5	6	
6	1	1	5	6	
6	--	--	5	6	
6	--	--	5	6	
6	--	--	5	6	
6	1	1	6	6	
--	--	--	--	--	
--	--	--	--	--	
--	--	--	--	--	
6	1	1	5	6	
6	1	1	5	6	

