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# Annual Report

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LANDELIJK EXPERTISE  
CENTRUM  
KINDERMISHANDELING

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**1.1.2017 to 12.31.2017**

June 2018, commissioned by the LECK board

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## 1. INTRODUCTION

This is the fourth annual report by the National Child Abuse Expertise Centre (*Landelijk Expertise Centrum Kindermishandeling* = LECK). This report provides a summary of LECK's activities in 2017, as well as occasional comparisons to previous years.

LECK was founded on October 31st, 2014 by the Academic Medical Centre Amsterdam, the Erasmus Medical Centre Rotterdam, the University Medical Centre Utrecht and the Netherlands Forensic Institute (NFI). LECK is the first and only co-operative structure that uses a combination of expertise in paediatrics and forensic-medical expertise in determining whether injuries justify a suspicion of child abuse. LECK aims to contribute to the protection of children by accelerating and improving the detection of child abuse, as well as child abuse policy.

LECK offers a solution for medical professionals nationwide who are in need of advice on child abuse without having to disclose patient data. These include paediatricians, child safety doctors, forensic doctors, and other medical professionals. Additionally, children can be referred to one of the LECK hospitals for consultation. LECK can be reached 24 hours a day, 7 days a week.

This report will mainly focus on LECK's core activity: determining injury in children. LECK's future perspectives as envisioned by the board will be expounded in the final section.

More information on LECK (about the organisation and its position, as well as its goals, values and method) can be found in the General Protocol and the document Quality Standards, available on [www.leck.nu/documentatie](http://www.leck.nu/documentatie).

In the past year, LECK has again shown that it plays an important role in injury interpretation in case of suspected child abuse. LECK distinguishes itself from all other paediatric-forensic expertise in the country by combining medical-forensic expertise and multidisciplinary care. The added value of this is apparent from the fact that in 47% of cases, abuse could be excluded with almost complete certainty. In these cases, the Code of Report may be aborted as the injury was concluded not to fit the characteristics of child abuse. The injury was then most frequently concluded to be accidental (82%) or due to illness. In the 16% of cases for which LECK concluded child abuse to be likely to certain, most cases concerned physical abuse.

Knowledge of disease is typically found (much) less in forensic-medical experts than in professionals of other medical disciplines.

In 2017, there has been an increase in the number of cases in which advice was given, yet not as much as in 2016, which saw an increase as high as 43%, probably due to the closure of the Forensic Polyclinic for Child Abuse. The number of consultations that were referred directly to LECK doubled in 2017 as compared to 2015.

LECK fulfils an important role in step 1 of the Code of Report, in which there is no certainty yet if the reported case does in fact concern child abuse. This is apparent from the fact that in half the cases, no contact was yet established with Child Protection Services (*Veilig Thuis*), an obligatory part of step 2 of the Code of Report.

Additionally, LECK is involved in step 5 of the Code of Report, which mainly concerns consultations and advice requested by Child Protection Services (29% of consultations and 22% of advice). For these cases especially, it is essential that suspicions of abuse can be sufficiently justified. These consultations are therefore aimed primarily at injury interpretation rather than injury detection. For these 49 consultations, a total of 12 medical disciplines were involved, which underlines the importance of medical expertise during this phase, as well as the fact that mere forensic-medical expertise does not suffice for many of these cases.

2017 showed an increase in the extent to which the advice given was supported by medical literature: from 14% in 2016 to 25% in 2017. The amount of scientific literature available is increasing, and the paediatricians at LECK are trained in the use of scientific literature to support the advice given by LECK. This is considered an important quality standard for LECK. The LECK paediatricians are also trained in Bayesian formulation, following the operational methodology at the Dutch Forensic Institute. In the coming years, LECK wants to further improve the quality of its advisory services. A general inspection audit was carried out around the turn of the year, the results of which will appear in the annual report of 2018. In 2018, a medical director will be appointed, whose main tasks will include quality control, as well as the general visibility of LECK and further promotion of the expertise centre.

June 2018

E. van de Putte, chairman Foundation LECK, on behalf of the board

Thanks to: Marie-Louise Loos for providing the tables from the Castor database LECK

## 2. GENERAL INFORMATION

### GENERAL DATA

Name:	National Child Abuse Expertise Centre ( <i>Landelijk Expertise Centrum Kindermishandeling</i> ) (LECK)
Legal form:	Foundation
Chamber of Commerce:	61809551
Office address:	Lundlaan 6 Utrecht
Mail address:	KE04.133.1, Postbus 85090, 3508 AB Utrecht
Website:	<a href="http://www.leck.nu">www.leck.nu</a>
Email address:	<a href="mailto:info@leck.nu">info@leck.nu</a>
Telephone:	0900-4445444 (Note: only for requests for consultation by medical professionals; general questions can be submitted by email)
IBAN:	NL83 TRIO 0197 9961 08 NL06 TRIO 0379 2049 40
BIC:	TRIONL2U
RSIN:	8544.97.730
ANBI-status:	Granted from 10.31.2014 as a Public Benefit Organisation

### 3. MANAGEMENT AND MANAGEMENT MEETINGS

#### BOARD

From 1.1.2017 to 12.31.2017, the board of LECK consisted of the following members:

- Chairman: Ms. E.M. van de Putte, MD, PhD
- Treasurer: Mr. J.K. Poot, MSc, from 1.1.2018
- Secretary: Mr. W.A. Karst, MSc
- Director: Mr. Prof. R.R. van Rijn, MD, PhD
- Director: Ms. M.J. Affourtit, MSc

#### ADVISORY COMMISSION

Ms. A. Laeven-De Boer, Manager Development Royal Dutch Kentalis, MD

Mr. Prof. H.S.A. Heymans, Professor emeritus paediatrics AMC, MD, PhD

Ms. S. Petra-de Jong, MD, Capacity Manager Board of Directors UMCU from 1-1-2018

#### LOCAL COORDINATORS

Each LECK location has its own coordinator:

AMC: Ms. A.H. Teeuw, MD

UMCU: Ms. I.M.B. Russel, MSc

EUR: Ms. M.J. Affourtit, MSc

NFI: Mr. W.A. Karst, MSc

Coordinator/secretary: Ms. F. Kamberg and Ms. D. Riem-van de Meent

#### ADVISORS TO THE BOARD

Ms. N. Coebergh, Child Safety Doctor with Child Protection Services Rotterdam Rijnmond, MD

Mr. B. Kruyver, forensic doctor with the Public Health Institute in the region Hollands Noorden, MD

#### BOARD MEETINGS

From the 1st of January to the 31st of December 2017, there have been 10 meetings of the board. A majority of board members was present at each of these meetings. At three of the meetings, the advisors and local coordinators were present. Two meetings were held with the advisory commission.

## 4. GENERAL REVIEW OF CASE STUDIES

### NUMBER OF CASES

From the January the 1st, 2017 to December the 31st, 2017, 248 cases were evaluated by LECK. These cases form the basis for the analyses in this report. The cases consisted of 199 requests for advice (80,2%) and 34 cases of face-to-face consultation (19,8%).

**Table 1: advisory cases and consultations in previous years**

Year	2015	2016	2017
Advisory cases	132	189	199
Consultations	103	34	49
<b>Total</b>	<b>235</b>	<b>223</b>	<b>248</b>

In 2015, 100 consultations were carried out. Initially, consultations for which there had been no explicit request to involve LECK, but which had been discussed during the weekly LECK meetings, were counted in. These were consultations involving patient care at one of the LECK locations. However, since 2017, only those consultations are counted in for which the involvement of LECK was specifically requested. These amounted to 23 in 2015, compared to 49 in 2017. That means that the amount of specifically requested consultations has more than doubled from 2015 to 2017. Additionally, there has been an increase in the number of advisory cases, a trend that appears to continue in 2018.

### DAY AND TIME OF INCOMING REQUESTS

The majority of requests came in on weekdays (230 cases, 92,7%). Only 18 requests were reported during the weekend. Most requests for advice came in on Wednesdays (41 cases, 20,6%).

By contrast, in 2016 most requests came in on Fridays. Otherwise, the data of 2017 matches the distribution registered in 2016.

**Table 2: day of incoming requests (n=248)**

Day of the week	Advice (%)	Consultations (%)	Total (%)
Mondays	35 (17,6%)	7 (14,3%)	<b>42 (16,9%)</b>
Tuesdays	37 (18,6%)	7 (14,3%)	<b>44 (17,7%)</b>
Wednesdays	41 (20,6%)	1 (2%)	<b>42 (16,9%)</b>
Thursdays	35 (17,6%)	23 (46,9%)	<b>58 (23,4%)</b>
Fridays	35 (17,6%)	9 (18,4%)	<b>44 (17,7%)</b>
Saturdays	8 (4%)	1 (2%)	<b>9 (3,6%)</b>
Sundays	8 (4%)	1 (2%)	<b>9 (3,6%)</b>
<b>Total</b>	<b>199 (80,2%)</b>	<b>49 (19,8%)</b>	<b>248 (100)</b>

Most requests came in during office hours (82%)(table 3).

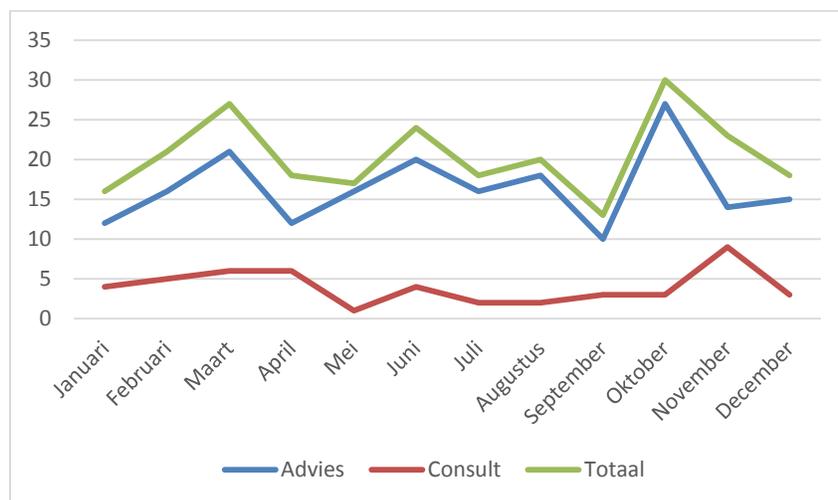
Table 3: time of incoming requests (n = 248)			
Time of day	Advice (%) **	Consultations (%) *	Total (%)
Daytime (08:00 - 17:00)	164 (82,4%)	39 (79,6%)	<b>203 (81,9%)</b>
Evening (17:00 - 17:00)	26 (13,1%)	9 (18,4%)	<b>35 (14,1%)</b>
Night (23:00 - 08:00)	8 (4%)	0 (0%)	<b>8 (3,2%)</b>
<b>Total</b>	<b>198 (79,8%)</b>	<b>48 (19,4%)</b>	<b>248 (100)</b>

\* For one consultation, no time was documented.

\*\* For one request for advice, no time was documented.

Graph 1 (below) shows the distribution of incoming requests over the months of the year.

There has been an increase in the number of advisory cases during the first half year, as well as at the end of the year. The number of consultations is more constant, with a small increase at the end of the year.



Graph 1: number of advisory cases and consultations per month in 2017

## WEEKLY MEETINGS

All advisory cases and consultations of 2017 were discussed during the weekly case meetings of LECK, held alternately on Mondays and Tuesdays. These meetings are one-hour teleconferences in which all LECK doctors take part, including the forensic radiologist. The time taken up by these meetings was not taken into account in the calculation of the total time spent on advice and consultations.

If LECK was unable during these meetings to reach a final conclusion, the Helper Society was called upon for advice, and the opinions of international experts (made anonymous) were also considered in reaching a final decision (2x in 2017).

## 24-HOUR CONNECTIVITY

From January 1st, 2017, to December 31st, 2017, a total 453 incoming phone calls were registered for 0900-4445444. Most calls were made after first contact had already been established. 11 % of phone calls took place out of office hours.

Total calls 489		%
Mobile phone calls	147	30,1
Landline calls	342	69,9
Calls during peak hours	435	89
Calls during off-peak hours	54	11,1
Total minutes peak	2608	
Total minutes off-peak	373	
Average duration	06:05	

Distribution calls per LECK hospital	
AMC	160
EMC	146
UMCU	141

The number of emails sent to LECK is not represented in the annual report. There were many more emails than phone calls.

## 5. ANALYSIS OF ADVICE GIVEN BY LECK

In 2017, there were 189 cases in which LECK advised medical professionals on the possibility of child abuse.

### ABOUT THE ADVISEES

Most requests for advice were submitted by paediatricians (52,8%), followed by Child Safety Doctors (*vertrouwensarts*) (22,1%), as is shown in table 4. Requests for advice were mainly issued from provinces of The Netherlands that house a LECK hospital (Utrecht, Noord-Holland and Zuid-Holland) and from the provinces Noord-Brabant and Gelderland. The distribution across the provinces has remained fairly constant (table 5)

Function	Frequency (%)
Paediatrician	105 (52,8)
Child Safety Doctor ( <i>vertrouwensarts</i> )	344(22,1)
Youth Doctor (preventive care)	4 (2)
Emergency Doctor	1 (0,5)
Child Protection ( <i>Jeugdzorg</i> ) Worker	0 (0)
Child Abuse Counsel Worker	1 (0,5)
General Practitioner	5 (2,5)
Other	38 (19,1)
<b>Total</b>	<b>199 (100)</b>

Others: Resident (SHO) paediatrics (12x), child abuse/domestic violence detection worker (2x), resident (SHO) surgery (6x) resident (SHO) dermatology (2x), resident (SHO) paediatric neurology, Burn injury doctor in training, surgeon, coordinator child protection and domestic violence (2x), GP in training (2x), paediatric neurologist, dentist, emergency care intern

	2017 n = 199	2016 n = 189	2015 n = 132
Province	n (%)	n (%)	n (%)
Zuid-Holland	60 (30)	73 (39)	31 (24)
Noord-Holland	38 (19)	24 (13)	24 (18)
Noord-Brabant	29 (15)	18 (9)	18 (14)
Utrecht	27 (14)	32 (17)	17 (13)
Gelderland	16 (8)	14 (7)	14 (11)
Groningen	7 (3)	8 (4)	2 (2)
Overijssel	7 (3)	6 (3)	4 (3)
Flevoland	4 (2)	5 (3)	11 (8)
Drenthe	4 (2)	2 (1)	2 (2)
Zeeland	2 (1)	2 (1)	4 (3)

Unknown	2 (1)	3 (2)	0 (0)
Limburg	1 (1)	1 (1)	2 (2)
Friesland	1 (1)	0 (0)	1 (1)
Other	0 (0)	1 (1)	2 (2)
<b>Total</b>	<b>199 (100)</b>	<b>189 (100)</b>	<b>132 (100)</b>

## ABOUT THE CHILDREN

Of all instances in which advice was given, boys comprised a very slight majority (102 cases, 51,3%). In 6 cases, the child's gender was not disclosed (table 6). These data are very similar to those of 2016.

**Table 6: gender of children subject of inquiry (n = 199)**

Gender	Frequency (%)
Boy	102 (51,3)
Girl	91 (45,7)
Unknown	6 (3)
<b>Total</b>	<b>199 (100)</b>

The average age of the children on whose behalf LECK was asked for advice was 2 years and 7 months. The oldest patient was 17 years old, the youngest 3 weeks old.

## THE INQUIRIES

In Table 3, the cases in which LECK gave advice are distributed across categories according to the subject of inquiry.

**Table 3: categorisation of advice requests (n = 188)\***

Category	Frequency (%)
Advice with regard to injury/ skin deviations/ physical deviations	147 (73,9)
Advice with regard to radiological deviations without re-evaluation by LECK	35 (17,6)
Advice with regard to radiological deviations re-evaluated by LECK	38 (19,1)
Advice with regard to deviating results of supplementary investigations	6 (3)
Advice with regard to behavioural signals/ symptoms/ risk factors	18 (9)

\*A case may fit several categories. The data of one case is lacking.

The most common question by far was if the observed injury fit the described trauma mechanism and if the cause of injury or deviation could be ascertained. There were also many questions on what supplementary investigation was necessary, especially in terms of the work-up in the case of suspicion of child abuse.

## WHY WAS CHILD ABUSE SUSPECTED BY THE ADVISEES?

Table 8 shows the reasons why the professionals considered the possibility that their patients were victims of child abuse. The most common reason was the presence of injury and/or skin deviations, often accompanied by explanations that did not fit the injury.

<b>Reason</b>	<b>Frequency (%)</b>
Injury and/or skin deviations	153 (76,0)
Deviations found in supplementary examination	35(17,6)
Injury did not fit the given explanation	32 (16,1)
Physical symptoms	19 (9,5)
Presence of risk factors	25 (12,6)
Inconsistent narrative	11 (5,5)
Injury does not fit the child's age	14 (7)
Delay in attendance	10 (5)
Inadequate interaction between child and guardian/parent	3 (1,5)
Guardian/parent claims abuse has taken place	5 (2,5)
Child claims he/she/ another child was abused	3 (1,5)
Precedent of (unexplained) injury in patient history	12 (6)
Behavioural signals by child	6 (3)
Signs of neglect on child	4 (2)
Other	11 (5,5)

\* Several reasons may apply per case  
 Other: Deviations found in radiology, anamnesis of baby tossing ritual, third party reported to Child Protection Services (*Veilig Thuis*), skin deviations uncharacteristic of Mongolian spots, questions about work-up, necessary care was not given, account of falling unobserved by others, radiologist considered inflicted injury, risk factors, suspicion by Child Protection Services, history of suspected sexual abuse.

In the 153 cases in which injury and/or skin deviations were found, these mostly concerned hematomas, fractures and skull/brain injury (table 9).

<b>Injury and/or skin deviations</b>	<b>Frequency (%)</b>
Hematoma†	72 (36,2)
Fractures other than skull fractures	38 (19,1)
Skull fracture	17 (8,5)
Brain damage ‡	13 (6,5)
Erythema†	9 (4,5)
Burns/ burn marks†	8 (4)
Excoriation†	2 (1)
Erosion†	10 (5)
Retina bleedings	5 (2,5)
Laceration	6 (3)
Cuts, slashes	3 (1,5)
Biting wounds	1 (0,5)

Table 9: injury and/or skin deviations in cases subject of inquiry (n = 199)*	
Anal injury§	4 (2)
Genital injury ¥	4 (2)
Internal stomach- and/or pelvic injury	3 (1,5)
Bald spots	1 (0,5)
Stabbing wound	1 (0,5)
Scars	7 (3,5)
Other	13 (6,5)
* Several injuries and/or skin deviations may apply per case † In places other than the anal/genital region ‡ Subdural-, subarachnoid-, intercerebral, subgaleal bleedings, dilated peripheral CSF areas, signs of ischemia, contusion ¥ Wounds, hematomas, erythema, possible laceration § Erythema, petechiae Other: condylomata accuminata (2x), herpes genitalis, skin deviations (blisters and skin loss), linear skull fracture and subcutaneous swelling, peri-anal mollusca contagiosa, petechiae at seam of buttocks, shoulder luxation, subluxation elbow, swelling on head.	

No cases of internal thoracic injury were reported. Of the 35 cases of deviations that came up during supplementary research, most concerned suspicious fractures or skull/brain damage (table 10).

Table 10: Injuries found during supplementary research for advisory cases (n = 35)*	
Injury	Frequency (%)
Suspicious fracture(s)	20 (57,1)
Skull/brain damage	16 (45,7)
Retina bleedings	2 (5,7)
Deviations in urine sample	0 (0)
Intoxication	0 (0)
Positive STD-diagnostic	0 (0)
Unspecified	1 (2,9)
* Several injuries/deviations may apply per case	

### THE TYPES OF CHULD ABUSE SUSPECTED BY THE ADVISEE

Table 11 shows the types of child abuse that were suspected by the medical professionals who contacted LECK for advice. In most cases, they considered the possibility physical assault or sexual abuse. These data largely correspond to those of 2016.

**Table 11: the types of child abuse suspected by the advisee (n = 199)\***

Type	Frequency (%)
Physical abuse/assault	170 (85,4)
Sexual abuse	36 (18,1)
Physical neglect	14 (7)
Paediatric condition falsification	0 (0)
Emotional abuse	5 (2,5)
Emotional neglect	2 (1)
Domestic violence	2 (1)

\* Several types may apply per case

### INVOLVEMENT CHILD PROTECTION SERVICES PRIOR TO ADVICE

Table 12 shows if Child Protection Services (*Veilig Thuis*) were consulted before the advisee contacted LECK. This table shows that LECK was frequently contacted during step 1 of the Code of Report, in which there is still doubt about the nature of the injury.

**Table 12: contact Child Protection Services (*Veilig Thuis*) prior to advice by LECK (n = 199)**

Contact	Number (%)
No	91 (45,7)
Yes, advice requested	29 (14,6)
Yes, report filed	49 (24,6)
The advisee works for Child Protection Services him/herself	28 (14,1)
Unknown	2 (1)
<b>Total</b>	<b>199 (100)</b>

### EXPERTISE USED IN ADVISING

Table 13 shows what type of expertise was used by LECK in providing advice. All requests for advice were obliged and treated by a LECK paediatrician. In all cases, a forensic doctor of the NFI was consulted immediately. All inquiries were treated during the weekly case studies meeting of LECK, which was invariably attended by one or several forensic doctors specialised in child abuse. Paediatric radiology was involved in 72 cases (36,2%). At times, other specialists were consulted, mainly of paediatric dermatology, paediatric neurology and paediatric ophthalmology. **For these 199 cases, a total of 7 different disciplines were consulted (beside paediatrics and forensic medicine).**

**Table 13: expertise used in advising (n = 199)\***

Discipline	Frequency (%)
Paediatrics	199 (100)

Forensic Medicine	199 (100)
Paediatric Radiology	72 (36,2)
Paediatric Ophthalmology	4 (2)
Paediatric Dermatology	5 (2,5)
Social Work	0 (0)
Paediatric Neurology	4 (2)
Other	5 (2,5)
* Several disciplines may apply per case Other: Child surgery, paediatric haematology (3x), paediatric neurosurgeon	

## OFFICIAL REEVALUATION RADIOLOGY AND TELEDIAGNOSTIC FOR ADVISORY CASES

As is shown in table 7, there were 38 cases in which the advisee specifically asked for a re-evaluation of radiological images by the paediatric radiologists of LECK. In 29 (14,6%) of cases, LECK itself recommended a re-evaluation of radiological images.

## TELEDIAGNOSTICS FOR ADVISORY CASES

For 60 advisory cases (30,2%) LECK evaluated photographic footage of the injury or deviations provided by the advisee.

## SUBJECT OF ADVICE BY LECK

Table 14 shows the subject of the advice given by LECK. When it is stated that advice was given with regard to a radiological skeletal survey, this means that advice was given either for or against the procedure. For 49 cases (24,6%), the advice given was supported with reference to medical-scientific literature, compared to 26 cases (13,8%) in 2016.

Advice concerned:	Frequency (%)
Radiological skeletal survey	83 (41,7)
Re-evaluation of radiology by LECK radiologist	29 (14,6)
Physical examination	40 (20,1)
Radiological examination other than radiological skeletal survey	30 (15,1)
Camera photos	43 (21,6)
Formulating an injury description	34 (17,1)
Supplementary anamnesis	38 (19,1)
Ophthalmoscopy	17 (8,5)
Consulting Child Protection Services ( <i>Veilig Thuis</i> )	36 (18,1)
Notifying Child Protection Services ( <i>Veilig Thuis</i> )	14 (7)
Other	8 (4)
Medical care	29 (14,6)
Laboratory research	31 (15,6)
Necessity of follow-up	14 (7)
Obtaining information from the medical professionals involved	12 (6)
Reporting injury according to medical-forensic format	28 (14,1)
Obtaining sub-specialist expertise	5 (2,5)

Obtaining forensic-medical expertise	44 (22,1)
Forensic-medical research	10 (5)
Legal issues / reporting to the police	4 (2)
Microbiological research	10 (5)
Reference to LECK for face-to-face consultation	6 (3)
Options for aid other than Child Protection Services in case of abusive family situation	0 (0)
Inquiry into objects associated with the injury	3 (1,5)
Unclear / unspecified	0 (0)
* In each case, advice may be given on several of the abovementioned subjects. Other: psychological examination, alleged connection with child porn network South-America, interpretation of injury, explanation for injury, trauma mechanism in relation to fracture, skull curve, top-to-toe examination, referral to paediatrician (advisee was a dentist)	

## SUSPICION OF CHILD ABUSE AFTER EVALUATION BY LECK

Table 15 shows how likely LECK estimated child abuse to be, based on the provided information.

In 12 cases, LECK concluded that the injury fits a disease or other affliction that excludes child abuse. These were: unspecified dermatological affliction (2x), molluscum contagiosum, condylomata accuminata (2x), perianal redness due to infection, bleeding injury hymen, unspecified skin deviation fitting a sucking habit but also infection, birth trauma (2x) vasculitis. For one case, the following underlying causes had to be excluded: vascular affliction/ metabolic disease (glutaaraciduria type 1)/ aneurysm/ Ehlers Danlos. For 20 (10,1%) of cases, LECK concluded that child abuse was almost certain. In four cases (2%) it was concluded that the observed injury or deviations were due to natural variation. The explanations given in these cases included: automutilation, cupping with skin cuts and increased risk of infection, and injury due to immersion. In 14 cases (7%) child abuse was concluded to be likely. In 49 cases (24,6%) child abuse was concluded to be possible. In 31 cases (15,6%) LECK did not have the necessary data to confirm or falsify the suspicion.

Table 15: probability of child abuse (n = 199)	2017	2016	2015
Probability	Frequency (%)	Frequency (%)	Frequency (%)
Almost certain†	20 (9,6)	16 (8,5)	9 (7)
Likely ‡	14 (6,7)	26 (13,8)	23 (17)
Possible ¥	49 (24,6)	35 (18,5)	43 (33)
Unlikely §	72 (36,2)	76 (40,2)	33 (25)
Almost certainly not *	22 (11,1)	5 (2,6)	7 (5)
Unclear, further inquiry necessary	31 (15,6)	34 (18)	17 (13)
<b>Total</b>	<b>208**</b>	<b>192</b>	<b>132</b>
† For instance: in case a parent has admitted to committing child abuse			
‡ For example: in case of brain injury with subdural hematoma, retina haemorrhage, or rib fractures			
¥ For example: in case of linear parietal skull fracture without brain damage and without plausible explanation			
§ For example: in case of fractures associated with accidental injury with adequate explanation			
* The injury/ anomaly is explained by recourse to disease/affliction, birth trauma or normal variation.			
** Several injuries (10) were included in two categories			

Table 15 shows the conclusions LECK reached in 2017 for the advisory cases, compared to the previous two years.

In the 16,3% of cases for which LECK concluded child abuse to be likely to certain, this almost exclusively concerned physical abuse. In the 47,3% of cases for which LECK concluded child abuse to be unlikely to almost certainly absent, the injury was most frequently due to accidental causes (82%) or disease.

## 6. ANALYSIS OF CONSULTATIONS BY LECK

In 2017, LECK carried out 49 consultations.

### TYPE OF CONSULTATION

In 8,2% of cases (n=4) the patient was admitted to hospital. The other consultations were exclusively polyclinical.

### ABOUT THOSE WHO REQUESTED THE CONSULTATION

Of 49 consultations, most were requested by Child Safety Doctors (26,8%) and Youth Services (*Jeugdzorg*) Workers (22,3%) (table 16), unlike in 2016, when paediatricians requested most consultations. The requests mainly came from provinces in which a LECK hospital is located (Utrecht, Noord-Holland en Zuid-Holland). This year, there were 6 provinces from which no requests were issued (table 17).

**Table 16: function of medical workers who requested consultation by LECK (n = 49)**

Function	Number (%)
Paediatrician	10 (20,4)
Child Safety Doctor	14 (28,6)
General practitioner	7 (14,3)
Youth Services Worker	11 (22,3)
Paediatrician	4 (8,2)
Other	2 (4,1)
Emergency doctor	1 (2)
<b>Total</b>	<b>49 (100)</b>

Other: Resident (SHO) Paediatrics, gynaecologist.

**Table 17: geographic location of medical workers who requested consultation by LECK (n = 49)**

Province	Number (%)
Zuid-Holland	14 (28,6)
Noord-Holland	14 (28,6)
Utrecht	12 (24,5)
Gelderland	3 (6,1)
Noord-Brabant	3 (6,1)
Flevoland	2 (4,1)
Groningen	1 (2)
Overijssel	0 (0)
Friesland	0 (0)
Drenthe	0 (0)
Limburg	0 (0)
Zeeland	0 (0)
Unknown	0 (0)
<b>Total</b>	<b>49 (100)</b>

## ABOUT THE CHILDREN

More girls than boys attended consultation at LECK (table 18). The average age of the children who attended consultation was 6 years and 8 months. The oldest child that attended consultation was 17 years old, the youngest 2 months.

**Table 18: gender of children who attended consultation (n = 49)**

Gender	Number (%)
Boy	15 (30,6)
Girl	34 (69,4)
<b>Total</b>	<b>49 (100)</b>

For 36,7% of families, measures had already been taken (table 19). In most cases, this concerned out-of-home-placement (custodial placement) (table 20).

**Table 19: measures taken in families of children who attended consultation by LECK (n = 49)**

Measures	Number (%)
Yes	18 (36,7)
No	27 (55,1)
Unknown	4 (8,2)
<b>Total</b>	<b>49</b>

## JUSTIFICATION OF REQUESTS FOR CONSULTATION

Table 21 shows the reasons given for requesting consultation, distributed across several categories.

**Table 21: distribution of reasons for consultation across categories (n = 49)\***

Category	Frequency (%)
Justification with recourse to injury/ skin deviations/ physical deviations	37 (75,5)
Justification with recourse to behavioural signs/ symptoms/ risk factors	16 (32,7)
Justification with recourse to radiological deviations	2 (4,1)
Justification with recourse to results of supplementary examination	0 (0)
*Several categories may apply per case	

By far the most common request was the interpretation of injury and/or deviations in the context of possible sexual abuse, especially genital examination in case of sexual abuse or genital mutilation. Additionally, there were a number of requests to evaluate of the possibility of inflicted injury, as well as the request to carry out the injury description. Finally, there were general requests for a top-to-toe

examination in order to look for any indications of physical abuse and to interpret any skin deviations and/or hematomas.

### WHY DID THOSE WHO REQUESTED CONSULTATIONS SUSPECT CHILD ABUSE?

Table 22 shows the reasons that the medical professionals who requested consultations considered the possibility of child abuse. The most common reasons were the presence of injury and/or skin deviations, presence of risk factors or the child's own claim that he or she had been the victim of abuse. In the 26 cases in which there were injuries and/or skin deviations, these were mostly hematomas, skull/brain damage and genital injury (table 24). No consultations were requested for burn wounds.

<b>Reason</b>	<b>Frequency (%)</b>
Presence of injury and/or skin deviations	33 (67,3)
Behavioural signs in child	13 (26,5)
Presence of risk factors	14 (28,6)
Physical symptoms	5 (10,2)
Parent/guardian claims abuse	1 (2)
Deviations found during supplementary examination	1 (2)
Other child from family claims abuse	3 (6,1)
Child claims he or she is victim of abuse	14 (28,6)
Injury does not fit explanation given	4 (8,2)
Injury does not fit the child's age	2 (4,1)
Delay in presentation	1 (2)
Signs of neglect on child	1 (2)
Inconsistent narrative	2 (4,1)
Inadequate interaction child and parent/guardian	1 (2)
Prior (unexplained) injury in patient history	5 (10,2)
Other**	6 (12,2)

\* Several reasons may apply per case  
 \*\* Other: Family visit in Sudan with social pressure for circumcision, disclosure sexual abuse by sister, anamnesis mother (2x) wounds on seam buttocks.

<b>Injury and skin deviations</b>	<b>Frequency (%)</b>
Hematoma†	19 (38,8)
Scars	7 (14,3)
Genital injury‡	5 (10,2)
Erosion†	5 (10,2)
Excoriation / deeper abrasions	2 (4,1)
Laceration	2 (4,1)
Burn wounds	2 (4,1)
Skull/ brain damage‡	1 (2)

Erythema†	1 (2)
Fractures other than skull fractures	1 (2)
Internal thoracic injury	1 (2)
Internal stomach- and/or pelvic injury	1 (2)
Anal injury	1 (2)
Cuts/ slashes	1 (2)
Stabs	1 (2)
Biting wound	1 (2)
Bald spots	1 (2)
Retina bleedings	1 (2)
Other	2 (4,1)
* Several injuries and/or skin deviations may apply per case † In places other the anal/genital region ‡ i.e. subdural bleedings and subdural hygromes ¥ cysts around vulva/anus, pus from foreskin and fever Other: hematomas lower back, jawline and inner left arm; warts on buttocks	

### TYPE OF ABUSE SUSPECTED BY THE MEDICAL WORKERS WHO REQUESTED CONSULTATIONS

Table 24 shows the type of child abuse suspected by the medical workers who requested consultations. In most cases, they suspected physical or sexual abuse.

**Table 24: type of child abuse suspected by those who requested consultation by LECK (n = 49)\***

Type	Frequency (%)
Physical abuse	32 (65,3%)
Sexual abuse	20 (40,8)
Emotional abuse	2 (4,1)
Physical neglect	1 (2)
Domestic violence	1 (2)
Emotional neglect	4 (8,2)
* Several types may apply per case	

### INVOLVEMENT CHILD PROTECTION SERVICE (*VEILIG THUIS*) PRIOR TO CONSULTATION

Table 25 shows whether Child Protection Services (*Veilig Thuis*) were involved prior to the consultations by LECK.

**Table 25: contact Child Protection Services prior to consultation by LECK (n = 49)**

Contact	Frequency
No	20 (40,8)
Yes, report filed	9 (18,4)
The person who requested consultation	10 (20,4)

works at Child Protection Services his/herself	
Yes, advice requested	8 (16,3)
Unknown	2 (4,1)
<b>Total</b>	<b>49 (100)</b>

## OTHER MEASURES TAKEN PRIOR TO CONSULTATION

Table 26 shows whether medical professionals that requested consultation by LECK had already taken action before the case was referred to LECK.

Table 26: other actions taken by the medical workers that requested consultation (n = 49)*	
Actions taken	Frequency (%)
Medical assistance provided	18 (36,7)
Forensic-medical expertise obtained from third parties	2 (4,1)
Discussion held with (medical) professionals involved in the case	14 (28,6)
Reported to the police	3 (6,1)
Obtaining (sub)specialist expertise	6 (12,2)
Other	7 (14,3)
None of the above	15 (30,6)

\* Several actions may apply per case  
Other: LECK-advice, involving neighbourhood watch team, going to the police his/herself, out-of-house placement and temporary custodian care

## EXPERTISE USED FOR CONSULTATIONS

Table 27 shows which expertise was used by LECK in providing the consultations. Nearly all consultations were handled by a paediatrician and a forensic doctor. All consultations were discussed during the weekly case studies meetings of LECK, which were always attended by several forensic doctors. Additionally, many other specialists were consulted, especially paediatric radiologists, social workers, paediatric neurologists and paediatric ophthalmologists. **A total of 12 different experts were consulted for these 48 consultations (besides paediatricians and forensic doctors).** In one case, it was not documented which expertise was used.

Table 27: expertise used for consultations (n = 48)*	
Discipline	Frequency (%)
Paediatrics	48 (100)
Forensic medicine	47 (95,9)
Paediatric radiology	5 (10,2)
Social work	4 (8,2)
Orthopedagogue specialised in child abuse	1 (2)
Paediatric pathology	1 (2)
Paediatric gynaecology	3 (6,1)
Paediatric dermatology	4 (8,2)

Clinical psychologist	5 (10,2)
Child and youth psychiatrist	1 (2)
Psychotrauma centre	1 (2)
Microbiology	1 (2)
Paediatric TNE specialist	2 (4,1)
Other	1 (2)
* Several types of expertise may apply per case Other: paediatric stomach/liver/intestine medicine	

## EVALUATION OF RADIOLOGY IN CONSULTATION

In 7 consultations (14,3%) radiological images were made and/or re-evaluated.

## STEPS TAKEN BY LECK DURING CONSULTATIONS

Table 28 shows which examinations LECK carried out during consultations. In almost all cases, these included physical examinations. Other common examinations were: radiology, laboratory research and consulting (medical) professors involved in the case. For one consultation, the actions taken by LECK were not documented.

**Table 28: examinations carried out by LECK during consultations (n = 49)\***

<b>Examination</b>	<b>Frequency (%)</b>
Physical examination	46 (93,9)
Radiological examination	10 (20,4)
Laboratory research	14 (28,6)
Discussion with other (medical) professionals involved in the case	8 (16,3)
Forensic-medical examination†	5 (10,2)
Microbiological examination	12 (24,5)
Psychological examination	5 (10,2)
Evaluation external files	2 (4,1)
Investigation of objects related to/ associated with injury ‡	0 (0)
Other	4 (8,2)
Unknown	1 (2)
* Several examinations may apply per case † Including investigation of traces ‡ For instance, when parents claimed that injury was caused by a certain object, this object was looked at Other: Evaluating photographic footage, having photos taken (3x).	

## SIGNALLING OTHER SIGNS OF CHILD ABUSE DURING CONSULTATIONS

In 18 of 49 cases (36,7%) LECK registered possible signs of child abuse that had not been found by the medical workers who requested the consultation. The injury found during supplementary examinations includes: multiple hematomas found during top-to-toe examination, behavioural signs, hematomas on the head (ears, throat), injury on buttocks, scars on back and lower arm, morbid obesity, psychic symptoms.

## SUSPICION OF ABUSE AFTER EVALUATION OF CONSULTATIONS BY LECK

Table 29 shows LECK's conclusions on the probability of child abuse based on the consultations. In twenty cases, abuse was excluded as the cause of injury, since LECK concluded that it was due to normal variation, disease or affliction (including birth trauma) or that there had been no injury. One consult of 2017 has not been fully documented yet, and so the conclusion to this case is still lacking.

Table 29: Probability of child abuse based on consultation	2017	2016	2015
Probability	Frequency (%)	Frequency (%)	Frequency (%)
Almost certain†	3 (6,1)	5 (14,7)	9 (9)
Likely‡	9 (18,4)	6 (17,6)	34 (33)
Possible¥	12 (24,5)	8 (23,5)	28 (27)
Unlikely§	5 (10,2)	7 (20,6)	27 (26)
Almost certainly not ∞	20 (40,8)	5 (14,7)	5 (5)
Unclear	0 (0)	3 (8,8)	0 (0)
<b>Total</b>	<b>48 (98)</b>	<b>34 (100)</b>	<b>103 (100)</b>

† Example: when a parent/guardian admits having abused the child  
‡ Example: brain injury with subdural hematomas, retina bleedings and rib fractures  
¥ Example: in case of linear parietal skull fracture without brain damage, without plausible explanation  
§ Example: a type of fracture that associated with accidental injury, with a plausible explanation.  
∞ Example: when all deviations can be explained by disease

In 12 cases (24,5%) LECK concluded that abuse was likely to almost certain. Physical abuse was most commonly suspected. In 25 cases, LECK concluded that child abuse was unlikely or almost certainly not the case. The most common reason for this conclusion was disease.

## SAFETY MEASURES TAKEN AFTER CONCLUSIONS BY LECK

Table 30 shows which safety measures were taken after the evaluation of consultations by LECK. In 26,5% measures were taken, most often by way of a so-called safety plan. After 25% of consultations, it was unknown if safety measures were taken. In 51% of cases, no safety measures were taken.

Table 30: safety measures after evaluation of consultations (n = 49)*	
Safety measure	Frequency (%)
None	25 (51)
Safety plan	11 (22,4)
Out-of-home placement	2 (4,1)

Surveillance	0 (0)
Temporary surveillance	0 (0)
Unknown	12 (24,5)
* Several safety measures may apply per case	

## 7. CASES REPORTED OUT OF OFFICE HOURS

LECK can be reached and mobilised 24/7. This is relatively expensive, but necessary to be able to satisfy the existing demand for care. The cases reported out of office hours are summarised below.

Of 248 cases, 43 (17,3%) were reported out of normal office hours (08:00-17:00). These concerned 34 requests for advice and 9 consultations. The tables below deal with these cases.

Day	Advice (%)	Consultations (%)	Total (%)
Monday	4 (11,8)	0 (0)	<b>4 (9,3)</b>
Tuesday	6 (17,6)	1 (11,1)	<b>7 (16,3)</b>
Wednesday	8 (23,5)	0 (0)	<b>8 (18,6)</b>
Thursday	1 (2,9)	5 (55,6)	<b>6 (14)</b>
Friday	5 (14,7)	1 (11,1)	<b>6 (14)</b>
Saturday	6 (17,6)	1 (11,1)	<b>7 (16,3)</b>
Sunday	4 (11,8)	1 (11,1)	<b>5 (11,6)</b>
<b>Total</b>	<b>34 (79,1)</b>	<b>9 (20,9)</b>	<b>43 (100)</b>

Most out-of-hours requests were made by paediatricians (60,5%), followed by Child Safety Doctors (*vertrouwensarts*) (60,5%), and Youth Services workers (9,3). These mainly came from provinces that house LECK-hospitals (Zuid-Holland 41,9%, Noord-Holland 20,9% and Utrecht 16,3%).

Table 32 shows which expertise LECK used for the out-of-hours requests. All advisory cases were handled by a paediatrician and most were immediately discussed with a forensic doctor. In 20,9% of cases, it was necessary to perform radiology outside of office hours.

Discipline	Frequency (%)
Paediatrics	43 (100)
Forensic medicine	40 (93)
Paediatric radiology	9 (20,9)
Paediatric gynaecology	2 (4,7)
Paediatric dermatology	1 (2,3)
Paediatric ophthalmology	1 (2,3)
Paediatric neurology	1 (2,3)
Paediatric pathology	1 (2,3)

Other	3 (7)
* Several disciplines may apply per case	
Other: ENT-specialist (2x), paediatric neurosurgeon	

It was relevant to know whether the cases that came in out of office hours were more or less severe with regard to the odds of child abuse. Table 33 shows how likely LECK estimated child abuse to be, based on the provided information.

Table 33: probability of child abuse for out-of-hours cases	2017 (n=43)	2016 (n=51)	2015 (n=47)
<b>Probability child abuse</b>	<b>Frequency (%)</b>	<b>Frequency (%)</b>	<b>Frequency (%)</b>
Almost certain†	5 (11,6)	6 (11,8)	1 (2)
Likely‡	4 (9,3)	11 (21,6)	6 (13)
Possible¥	12 (27,9)	12 (23,5)	11 (23)
Unlikely§	11 (25,6)	15 (29,4)	16 (34)
Almost certainly not∞	5 (11,6)	3 (5,9)	1 (2)
Unclear, further inquiry necessary	8 (18,6)	5 (9,8)	7 (15)
<b>Total</b>	<b>43 (100)</b>	<b>51 (100)</b>	<b>47 (100)</b>
† For instance: in case a parent has admitted to committing child abuse			
‡ For example: in case of brain injury with subdural hematoma, retina haemorrhage, or rib fractures			
¥ For example: in case of linear parietal skull fracture without brain damage and without plausible explanation			
§ For example: in case of fractures associated with accidental injury with adequate explanation			
∞ For example: in case all deviations can be explained by disease			

In 20,9% of the out-of-hours cases, child abuse was likely to certain, compared to 18,5% in the total sample. The cases reported out of office hours, therefore, are slightly more likely to be cases of abuse. In 37,2% of these cases, abuse was unlikely to absent. In 18,6% of cases, further inquiry was necessary, such as additional radiology. It is very important for LECK to ascertain these probabilities as soon as possible, especially in view of the necessity of security measures in the child's family.

## 8. EDUCATION

LECK also has an educational function. Below is an oversight of LECK's activities with regard to education in 2017, as well as the board's vision for the future in the context of education.

### CONGRESSES

On the 9th of February 2017, the annual LECK congress took place. It was attended by 229 professionals, mainly paediatricians, Child Safety Doctors, youth doctors, Child Abuse Detection Workers, general practitioners, psychologists/social workers, forensic doctors and nurses. The day was collectively graded 8,3/10 and the presentations 8,1/10. A detailed report of the congress can be found on <http://leck.nu/congres/>.

## SCHOOLING DAYS

LECK organised three schooling days in 2017 for its paediatricians and forensic doctors. An integral part of these schooling days was the case studies meeting in which all advisory cases and consultations by LECK (made anonymous) were discussed. Also, attention was given to LECK's methodology, new guidelines were presented, and presentations were given on child abuse.

22nd of March 2017 (location Academy Building Utrecht):

Symposium Child Abuse: the (non)sense of screening in emergency care

22nd of June 2017 (location EMC):

Case Studies; FARR/FMEK plan Rotterdam, inflicted skull/brain damage

5th of October 2017 (location EMC): with Child Safety Doctors; Burn wounds

## CHILD ABUSE ATLAS

In 2017 LECK was part of the Child Abuse Atlas, see also <http://evidentiapublishing.com/child-abuse-atlas/>

## 9. SCIENTIFIC RESEARCH

Several members of LECK are part of the Helper Society, and are thereby granted access to an international network of medical experts who exchange, among other things, anonymous case studies on the topic of injury interpretation. Whenever LECK is unable to reach a conclusion during its weekly case studies meetings, the Helper Society is consulted so that the opinion of international experts is taken into account in the final advice given by LECK.

Several members of LECK carry out scientific research on child abuse. Below is a list of the publications by LECK members in 2017. All LECK members receive a daily update on publications that are relevant for injury interpretation and the safety of patients.

### PUBLICATIONS 2017

In 2017, 20 members of LECK were involved in 15 publications on child abuse. 7 of these were published in Dutch scientific journals. Below is a list of the publications.

1. [Children bereaved by fatal intimate partner violence: A population-based study into demographics, family characteristics and homicide exposure.](#) Alisic E, Groot A, Snetselaar H, Stroeken T, van de Putte E. PLoS One. 2017 Oct 4;12(10):e0183466. doi: 10.1371/journal.pone.0183466. eCollection 2017.

2. [Psychosocial symptoms in very young children assessed for sexual abuse: A qualitative analysis from the ASAC study.](#) Vrolijk-Bosschaart TF, Brilleslijper-Kater SN, Widdershoven GAM, Teeuw AH, Verlinden E, Voskes Y, van Duin EM, Verhoeff AP, de Leeuw M, Roskam MJ, Benninga MA, Lindauer RJL.; Child Abuse Negl. 2017 Nov;73:8-23. doi: 10.1016/j.chiabu.2017.09.001. Epub 2017 Sep 20.
3. [Follow-up protocol was useful for children whose parents attended emergency departments after partner violence, substance abuse or a suicide attempt.](#) Hoytema van Konijnenburg EMM, Gigengack M, Teeuw AH, Sieswerda-Hoogendoorn T, Brilleslijper-Kater SN, Flapper BC, Lindauer RJL, van Goudoever JB, van der Lee JH; aftERCare group. Acta Paediatr. 2018 Jan;107(1):110-120. doi: 10.1111/apa.14082. Epub 2017 Oct 11.
4. [Physical symptoms in very young children assessed for sexual abuse: a mixed method analysis from the ASAC study.](#) Vrolijk-Bosschaart TF, Brilleslijper-Kater SN, Widdershoven GA, Teeuw ARH, Verlinden E, Voskes Y, van Duin EM, Verhoeff AP, Benninga MA, Lindauer RJL. Eur J Pediatr. 2017 Oct;176(10):1365-1374. doi: 10.1007/s00431-017-2996-7. Epub 2017 Aug 26.
5. [Throwing the baby out with the bath water - response to the Swedish Agency for Health Technology Assessment and Assessment of Social Services \(SBU\) report on traumatic shaking.](#) Saunders D, Raissaki M, Servaes S, Adamsbaum C, Choudhary AK, Moreno JA, van Rijn RR, Offiah AC; Written on behalf of the European Society of Paediatric Radiology Child Abuse Task Force and the Society for Pediatric Radiology Child Abuse Committee. Pediatr Radiol. 2017 Oct;47(11):1386-1389. doi: 10.1007/s00247-017-3932-8. Epub 2017 Aug 7. Review. No abstract available.
6. [The value of postmortem computed tomography in paediatric natural cause of death: a Dutch observational study.](#) van Rijn RR, Beek EJ, van de Putte EM, Teeuw AH, Nikkels PGJ, Duijst WLJM, Nievelstein RA; Dutch NODO Group. Pediatr Radiol. 2017 Oct;47(11):1514-1522. doi: 10.1007/s00247-017-3911-0. Epub 2017 Jul 5.
7. [Childhood Falls With Occipital Impacts.](#) Atkinson N, van Rijn RR, Starling SP. Pediatr Emerg Care. 2017 Jun 6. doi: 10.1097/PEC.0000000000001186. [Epub ahead of print]
8. [Targeted coronary post-mortem CT angiography, straight to the heart.](#) van Rijn RR, Leth PM. Lancet. 2017 Jul 8;390(10090):100-101. doi: 10.1016/S0140-6736(17)31260-6. Epub 2017 May 24. No abstract available.
9. [Using the table in the Swedish review on shaken baby syndrome will not help courts deliver justice.](#) Bilo RAC, Banaschak S, Herrmann B, Karst WA, Kubat B, Nijs HGT, van Rijn RR, Sperhake J, Stray-Pedersen A. Acta Paediatr. 2017 Jul;106(7):1043-1045. doi: 10.1111/apa.13857. Epub 2017 May 8. No abstract available.

10. [Statistical significance does not imply \(forensic medical\) relevance.](#) Biló RA, Nijs HG, Stoel RD. *Pediatr Radiol.* 2017 May;47(5):628-629. doi: 10.1007/s00247-017-3803-3. Epub 2017 Mar 2. No abstract available.
11. [Commentary on: Intarapanich NP, McCobb EC, Reisman RW, Rozanski EA, Intarapanich PP. Characterization and comparison of injuries caused by accidental and non-accidental blunt force trauma in dogs and cats. J Forensic Sci 2016 Jul;61\(4\):993-9.](#) Nijs HGT, Gerretsen RRR, Stoel RD, Endenburg N, Gröne A. *J Forensic Sci.* 2017 May;62(3):829. doi: 10.1111/1556-4029.13465. Epub 2017 Feb 28. No abstract available.
12. [Initial response of the European Society of Paediatric Radiology and Society for Pediatric Radiology to the Swedish Agency for Health Technology Assessment and Assessment of Social Services' document on the triad of shaken baby syndrome.](#) Offiah AC, Servaes S, Adamsbaum CS, Argyropoulou MI, Halliday KE, Jaspan T, Owens CM, Raissaki M, Rosendahl K, Stoodley N, Van Rijn RR, Callahan MJ, Chung T, Donaldson JS, Jaramillo D, Slovis TL, Strouse PJ. *Pediatr Radiol.* 2017 Apr;47(4):369-371. doi: 10.1007/s00247-017-3808-y. Epub 2017 Feb 23. No abstract available.
13. [The geometrical precision of virtual bone models derived from clinical computed tomography data for forensic anthropology.](#) Colman KL, Dobbe JGG, Stull KE, Ruijter JM, Oostra RJ, van Rijn RR, van der Merwe AE, de Boer HH, Streekstra GJ. *Int J Legal Med.* 2017 Jul;131(4):1155-1163. doi: 10.1007/s00414-017-1548-z. Epub 2017 Feb 10.
14. [The Value of a Checklist for Child Abuse in Out-of-Hours Primary Care: To Screen or Not to Screen.](#) Schouten MC, van Stel HF, Verheij TJ, Houben ML, Russel IM, Nieuwenhuis EE, van de Putte EM. *PLoS One.* 2017 Jan 3;12(1):e0165641. doi: 10.1371/journal.pone.0165641. eCollection 2017.
15. [Assessments carried out by a child abuse and neglect team in an Amsterdam teaching hospital led to interventions in most of the reported cases.](#) Teeuw AH, Sieswerda-Hoogendoorn T, Aaftink D, Burgers IAV, Vrolijk-Bosschaart TF, Brilleslijper-Kater SN, Heymans HSA, van Rijn RR. *Acta Paediatr.* 2017 Jul;106(7):1118-1127. doi: 10.1111/apa.13735. Epub 2017 Jan 30.

## 10. FINANCES

### FINANCING ONGOING BOOK YEAR

In 2017, LECK was financed in its entirety by the Ministry of Health, Welfare and Sport. Its financial means mainly go into hiring its personnel, namely:

- Paediatricians in the Academic Medical Centre Amsterdam, the University Medical Centre Utrecht en the Erasmus Medical Centre in Rotterdam (guaranteeing a 24-hour service)
- Forensic doctors at the Netherlands Forensic Institute
- A coordinator and a secretary in UMC Utrecht

Additionally, a small amount of the funds are spent on connectivity (the central phone number), the development of the website and the use of a well-secured database (Castor).

### ANBI-STATUS

Foundation LECK has the Dutch tax status Public Benefit Organisation (ANBI) allotted to it by the Dutch Tax Agency.

### FUTURE FINANCING

The Ministry of Health, Welfare and Sport is responsible for the continuity and availability of forensic medical expertise for children. LECK is currently dependent on a yearly allotment of state funding. To safeguard the quality of LECK's services in the future, however, it is necessary to achieve long-term certainty on financing. To this end, a dialogue is being held with the Ministry of Health, Welfare and Sport.

## 11. LECK'S VISION FOR THE FUTURE

In the coming years, LECK will further commit itself to providing advice of the highest possible quality on the nature of injury in children in case of suspicion of child abuse. In order to do so, LECK professionals will receive additional instruction in Bayesian formulation, as well as the use of available scientific literature in supporting their advice. Additionally, a new survey will be held among advisees in order to answer the question: what exactly do advisees need in order to adequately help their patients and how can LECK satisfy this demand? Furthermore, the recommendations that issued from the quality control audit will be further put to effect. The implementation of the aforementioned steps will be given shape by the new medical director, who will be appointed in the course of 2018.

Another crucial element of LECK's vision for the future is its visibility: advisees need to know about LECK and be able to notify or consult it when necessary. To increase LECK's visibility and its role in the protocol for reporting child abuse, an on-going dialogue with the Royal Dutch Medical Association (KNMG) has been established; also, the development of a plan for communication and better implementation is underway.

Furthermore, LECK has the ambition to function more as an expertise centre than it has before, especially in the realm of education. At the end of 2018, LECK will organise a master class in forensic paediatrics. LECK also aims to play an increasingly central role in the instruction of general practitioners, youth doctors, emergency doctors and paediatricians on the topic of injury interpretation in case of suspicion of child abuse.

## ADDENDUM: LIST OF LECK PHYSICIANS PER 12.31. 2017

<b>Name</b>	<b>Function</b>	<b>Centre</b>
M. Affourtit	Paediatrician	EMC
A. van Bellegem	Paediatrician	AMC
F. van Berkestijn	Paediatrician	UMCU
R. Bilo	Forensic doctor	NFI
M. Bouwman	Paediatrician	AMC
W. Karst	Forensic doctor	NFI
R.J. Nievelstein	Paed. radiologist	UMCU
S. Nijhof	Paediatrician	UMCU
H. Nijs	Forensic doctor	NFI
P. Puiman	Paediatrician	EMC
E. van de Putte	Paediatrician	UMCU
R. van Rijn	Paed. radiologist	AMC
S. Robben	Paed. radiologist	MUMC
J. Ruskamp	Paediatrician	UMCU
I. Russel	Paediatrician	UMCU
A. Smeijers	Paediatrician	AMC
R. Teeuw	Paediatrician	AMC
H. Terlingen	Forensic doctor	NFI
S. de Vries	Forensic doctor	NFI
S. Wolt	Paediatrician	UMCU

EMC: Erasmus Medical Center, Sophia Children's Hospital

AMC: Academic Medical Center, Emma Children's Hospital

MUMC Maastricht University Medical Center

UMCU: University Medical Center Utrecht, Wilhelmina's Children's Hospital

NFI: Dutch Forensic Institute