


WHO. (2001a). International Classification of Functioning, Disability and Health (ICF) 
http://www.who.int/classifications/icf/en. (Date of access: Retrieved on 08 May 2008)


APPENDIX I

PERMISSION FROM THE RESEARCH ETHICS COMMITTEE
OF MINISTRY OF HEALTH AND QUALITY OF LIFE,
MAURITIUS
The National Ethics Committee

Decision

Title of Research Proposal: Development of a communication assessment protocol for young children with cleft palate in Mauritius

Research Protocol No.: MHS 458/27

Submitted on: 27 January, 2005

Applicant: Mrs R. Gopal

Address of Applicant: c/o Dr J.C. Mufih, Mauritius Institute of Health

National Ethics Committee Meeting held on Monday 28 February, 2005 has awarded ethical clearance to the above project proposal.

The applicant during the research activity is required to:

(a) Submit a Progress Report every month;
(b) Notify the Ethical Committee of any amendment of recruitment material or of consent form, or of information to be submitted to the research participant;
(c) Report to the Ethical Committee any serious or unforeseen circumstances;
(d) Report to the Ethical Committee termination of the study;
(e) Provide relevant information to the Ethical Committee ongoing review; and
(f) Give a copy of the Final Summary or the Final Report to the Ethical Committee.

(Dr R.S. Sungkur)
Chief Medical Officer
for Permanent Secretar

01 March 2005
MHS 458/27

01 March 2005

Madam,

Ethical Clearance

I am directed to inform you that the Ethical Committee of the Ministry of Health and Quality of Life, has, at its meeting of 28 February 2005 considered the request made by you on 27 January 2005.

2. The Committee has consequently awarded Ethical Clearance subject to the conditions laid down in the annex.

Yours faithfully,

(S.K. Sobee)
for Permanent Secretary

Mrs R. Gopal
c/o Dr J.C. Mohith
Mauritius Institute of Health
APPENDIX II

PERMISSION FROM THE RESEARCH PROPOSAL AND ETHICS COMMITTEE, FACULTY OF HUMANITIES, UNIVERSITY OF PRETORIA
Thank you for the application you submitted to the Research Proposal and Ethics Committee, Faculty of Humanities.

I have pleasure in informing you that the Research Proposal and Ethics Committee formally approved the above study on an ad hoc basis. The approval is subject to the candidate abiding by the principles and parameters set out in her application and research proposal in the actual execution of the research.

The Committee requests you to convey this approval to Mrs Gopal.

We wish you success with the project.

Sincerely

CSL Delport

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Prof CSL Delport
Vice Chair: Research Proposal and Ethics Committee
Faculty of Humanities
UNIVERSITY OF PRETORIA
APPENDIX III

LETTER OF INFORMATION AND INFORMED CONSENT
FOR PARENTS AS RESPONDENTS
Date:

Information sheet for parents participating in the study.

Presented in English, but a verbal translation will be done in Creole or maternal language of the subject and the parents.

My name is Mrs. Rachna Gopal, I am the senior Speech-language therapist and Audiologist in M.O.H, Mauritius. I am currently registered as a doctoral student at the University of Pretoria. I shall be carrying out this project with the approval of Ministry of Health, Mauritius and the University of Pretoria. My supervisors are Prof. Brenda Louw and Dr. Alta Kritzinger.

The main aim of this project is to develop a communication assessment protocol for young children with cleft lip and or palate (CL/P). The speech language therapists and audiologists working with children with CL/P need an assessment tool that is appropriate and standardized for use in Mauritius.

You are requested to participate in this study, on a voluntary basis. If your child is able to give assent we will also request his/her permission to participate in this study.

You will be interviewed regarding background information relating to your family, child’s birth history and your opinion regarding the feeding, speech and hearing of your child. During the second part of the study the therapist, in the hospital where your child is currently following speech therapy will carry out speech and hearing assessment of your child. You will be required to bring the child for the assessment to the hospital and the test will last less than one hour. It will be arranged at a time convenient to you. The results will be recorded with an audio recorder and a video tape recorder.

All information that is gathered will be presented as a thesis and a scientific paper. Neither your name nor your child’s name will be individually mentioned, in fact great care will be taken to keep your child’s information confidential. Only those directly concerned with the care of your child in the hospital will be able to access this information. These recordings and data may also be used in the future, for research purposes.

You are requested to participate voluntarily and you may withdraw from the study if you wish to. This will not affect your follow-up appointments at the hospital in any way. I would like to add that neither you nor your child will receive any money or reimbursement for participating in this research.

Your kind cooperation will be greatly appreciated and you will be informed of the results of the study when it is complete. Should you have any further questions please do not hesitate to ask me.

Thank you for your cooperation. Kindly sign the attached letter.
**Project Title:** Development of a communication assessment protocol for young children with cleft lip and or palate in Mauritius.

1. I have read and the information relating to this project has been explained to me by Mrs. R. Gopal

2. I have had explained to me the purposes of this project and what will be required of me and my child, and any questions have been answered to my satisfaction, I agree to the arrangements described in the information sheet in so far as they relate to my child’s participation in this project.

3. I understand that participation is entirely voluntary and that I have the right to withdraw at any time from the project, and that this will not affect any care or services I may be receiving in the future.

4. I understand that my child’s full name will not be used and that details of my child’s case history will be treated in confidence.

5. I have been informed that the completed forms and data will be stored in the child’s hospital files and be available for future research.

Name:

Signed:        Date:

Principal Investigators:Mrs. Rachna Gopal. Email: Rachna@intnet.mu Tel: 6863854  
   Prof. Brenda Louw. Email: Brenda.Louw@up.ac.za
Information sheet for speech language therapists and audiologists participating in the study.

You are requested to participate in a research project: “Development of a Communication Assessment Protocol for Young Children with Cleft Lip and/or Palate in Mauritius”. I, Mrs. R. Gopal, Senior Speech-Language Therapist and Audiologist, am registered as a doctoral student at the University of Pretoria. I shall be carrying out this research project with the approval of Ministry of Health, Mauritius and the University of Pretoria. My supervisors are Prof. Brenda Louw and Dr. Alta Kritzinger.

The aim of this project is to develop a communication assessment protocol that will help improve service delivery to children with CL/P and their families, monitor their progress objectively and document the treatment outcomes. In addition, the Speech Language Therapists and Audiologists working with children with CL/P will have an assessment tool that is appropriate, uniform and standardized for use in Mauritius.

You are requested to participate in this study, on a voluntary basis. This research study will be carried out in three phases. During Phase One of the study, you will be requested to complete a questionnaire survey form by interviewing parents to gather essential background information regarding the children with CL/P and their families.

In Phase Two of the study the compiled Communication Assessment Protocol, will be presented to you and you will answer a questionnaire regarding your perceptions of this communication assessment tool. Furthermore, you will be requested to participate in testing the clinical applicability of this protocol, on children with CL/P, who have been selected and their parents have voluntarily agreed to participate in this research project. Finally, in Phase Three you will be requested to attend the focus group session with other professionals and express your views.
regarding the communication assessment protocol. Participation will improve the trustworthiness of the assessment protocol.

Should you have any further questions please do not hesitate to ask me. You are requested to participate voluntarily and you may withdraw from the study if you wish to without any repercussions. I would like to add that you will not receive any money or reimbursement for participating in this research. Your kind cooperation will be greatly appreciated and you will be informed of the results of the study when it is complete.

If you agree to participate please sign the letter of consent.

Thank you for your cooperation.

Contact Persons:  Mrs. Rachna Gopal. Email: Rachna@intnet.mu Tel: 6863854
Prof. Brenda Louw. Email: Brenda.Louw@up.ac.za
**Project Title:** Development of a Communication Assessment Protocol for Young Children with Cleft lip and or Palate in Mauritius.

1. I have read and the information relating to this project has been explained to me by Mrs. R. Gopal

2. I have had explained to me the purposes of this project and what will be required of me. I agree to the arrangements described in the information sheet.

3. I understand that participation is entirely voluntary and that I have the right to withdraw at any time from the project.

Name:

Signed: Date:

Contact persons: Mrs. Rachna Gopal. Email: [Rachna@intnet.mu](mailto:Rachna@intnet.mu) Tel: 6863854

Prof. Brenda Louw. Email: Brenda.Louw@up.ac.za
APPENDIX V

INTERVIEW SCHEDULE FOR RESPONDENTS PHASE ONE OF THE STUDY
Please circle appropriate choices.

**SOURCE OF INFORMATION:**

For office use

Medical records at:
Victoria Hospital 1
If other 2 Specify ______

**Interview of:**
Mother 1
Father 2
Both parents 3
If other 4 Specify ______

**Place of interview:**
Hospital 1
If other 2 Specify ______

**Questionnaire filled in by:**
Speech Therapist & Audiologist 1
Speech & Hearing Assistant 2
If other 3 Specify ______

Interview respondent/s’ consent __________________________ DATE: ______

PLEASE FILL IN ALL SECTIONS OF THE QUESTIONNAIRE

SECTION A  BIOGRAPHICAL INFORMATION
SECTION B  FAMILY BACKGROUND
SECTION C  BIRTH HISTORY
SECTION D  TYPE OF CLEFT
SECTION E  SURGICAL HISTORY
SECTION F  FEEDING, SPEECH AND HEARING
SECTION G  PATHWAY OF CARE
SECTION A: BIOGRAPHICAL INFORMATION

A1 UNIT NUMBER__________________ At Plastic Surgery Clinic Victoria hospital

SURNAME__________ NAME____________________________

A2 GENDER: MALE 1 FEMALE 2

A3 DATE OF BIRTH $$$$/$$$/____

AGE AT DATA COLLECTION (IN MONTHS) ______

0-18 months 1 19-36 months 2 37-60 months 3

A4 ADDRESS________________________Tel;:

Please indicate the hospital situated in child’s catchment area

HEALTH REGION: DR JEETOO HOSPITAL 1

SSRN HOSPITAL 2

FLACQ HOSPITAL 3

VICTORIA HOSPITAL 4

J.N. HOSPITAL 5

SECTION B FAMILY BACKGROUND

B1 MARITAL STATUS OF BIOLOGICAL PARENTS:

MARRIED AND LIVING TOGETHER 1

SEPARATED/ DIVORCED 2

SINGLE PARENT 3

IF OTHER 4 SPECIFY______

B2 INFORMATION REGARDING BIOLOGICAL PARENTS

MOTHER

B2 a) Mother’s AGE (IN YEARS) ____________

Mother’s AGE GROUP when this child was born.

Less than 20 years 1 21-39 years 2 More than 40 years 3

B2 b) Mother’s EDUCATIONAL LEVEL:

Primary 1 Secondary 2 Tertiary (University) 3

B2 c) IS THE MOTHER WORKING?

YES 1 NO 2 PART TIME 3
FATHER

B2 d) Father’s AGE (IN YEARS) ________________

B2 e) Father’s EDUCATIONAL LEVEL
Primary 1     Secondary 2     Tertiary (University) 3

B2 f) IS THE FATHER WORKING?
YES 1     NO 2     PART TIME 3

B3 THE FAMILY UNIT IS COMPOSED OF? (NUMBER OF CHILDREN)
ONE 1     TWO 2     THREE 3     MORE THAN THREE 4

If more than one what is this child’s position? __________

B4 ARE PARENTS BLOOD RELATIVES (CONSANGUINITY)?
YES 1     NO 2

If yes specify the relationship ________________

B5 IS THERE ANY FAMILY HISTORY OF CLEFT LIP AND/OR PALATE?
YES 1     NO 2

If yes specify the relationship to the child ________________

B 6 a) NUMBER OF LANGUAGES SPOKEN AT HOME BY THE HOUSEHOLD MEMBERS
ONE 1     TWO 2     MORE THAN TWO 3

B6 b) Circle the Languages spoken at home (circle more than one if appropriate)
CREOLE 1     FRENCH 2     ENGLISH 3     BHOJPURI 4     HINDI/URDU 5     IF OTHER 6 SPECIFY __

B 6 c) CIRCLE THE MOST COMMONLY SPOKEN LANGUAGE AT HOME (circle one only)
CREOLE 1     FRENCH 2     ENGLISH 3     BHOJPURI 4     HINDI/URDU 5     IF OTHER 6 SPECIFY __

SECTION C BIRTH HISTORY

C1 ANY SPECIFIC MATERNAL ANTENATAL HISTORY
YES 1     NO 2

If yes specify the nature of problem ________________________

C2 PLACE OF DELIVERY: HOSPITAL 1     PRIVATE CLINIC 2     HOME 3     OTHER 4

C3 TYPE OF DELIVERY: NORMAL 1     CAESAREAN 2     BREACH 3     FORCEPS 4     OTHER 5

C4 BIRTH WEIGHT OF CHILD ________________ KGS.

WITHIN NORMAL RANGE 1     LESS THAN NORMAL 2     MORE THAN NORMAL 3
C5 DOES THE CHILD HAVE ANY SYNDROME?
YES 1
NO 2
MAYBE, BUT NOT KNOWN 3

C6 DOES THE CHILD HAVE ANY OTHER MALFORMATION/DISEASE?
YES 1
NO 2
NOT KNOWN 3

SECTION D TYPE OF CLEFT

LIP ONLY 1
PALATE ONLY 2
LIP AND PALATE 3
SUBMUCOUS CLEFT PALATE 4

PLEASE SPECIFY
UNILATERAL / BILATERAL
COMPLETE / INCOMPLETE

For Unilateral Cleft Lip please specify
RIGHT/LEFT

For Cleft Palate specify
HARD / SOFT

SECTION E SURGICAL HISTORY

E1 HOW MANY TIMES HAS THE CHILD BEEN OPERATED FOR CLEFT LIP AND OR PALATE?
NONE 1
ONCE 2
TWICE 3
THREE TIMES 4
MORE THAN THREE TIMES 5

IF OPERATED:

E1a) SITE OF OPERATION

LIP REPAIR 1
PALATE REPAIR 2
SECONDARY REPAIR 3

E1b) AGE AT THE TIME OF OPERATIONS (IN MONTHS)

E1c) ANY BREAKDOWN?
YES 1
NO 2

E1d) PLASTIC SURGEON:

AT VICTORIA HOSPITAL 1
IF OTHER 2
SPECIFY

E2 HAS THE CHILD UNDERGONE ANY OTHER OPERATIONS?
YES 1
NO 2

E2a) IF YES, OPERATION INVOLVED:
EARS 1
CARDIAC 2
IF OTHER 3
SPECIFY

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**SECTION F FEEDING, SPEECH AND HEARING HISTORY**

F1 a) WERE ANY **FEEDING DIFFICULTIES** EXPERIENCED JUST AFTER BIRTH?  
   **YES** 1  **NO** 2  

b) IF YES WHO ADVISED THE MOTHER ON HOW TO FEED?  
   **SPEECH THERAPIST** 1  **NURSE** 2  **DOCTOR** 3  **IF OTHER** SPECIFY 4  

   c) TYPE OF FEEDING JUST AFTER BIRTH: *(circle the most common frequent type)*  
   Breast 1  Bottle 2  Spoon 3  Cup 4  Nasogastric tube 5  If other 6  Specify___________  

   d) ARE THERE ANY FEEDING DIFFICULTIES AT PRESENT?  **YES** 1  **NO** 2  
   If yes describe__________________________________________  

F2 IN YOUR OPINION DOES YOUR CHILD HAVE ANY **SPEECH PROBLEM**?  
   **YES** 1  **NO** 2  
   If yes describe__________________________________________  

F2 a) DOES YOUR CHILD RECEIVE SPEECH THERAPY?  
   **YES** 1  **NO** 2  

F2 b) IF YES HOW FREQUENTLY?  
   Weekly 1  Fortnightly 2  Once in a month 3  Once in three months 4  If other 5  specify …

F3 IN YOUR OPINION DOES YOUR CHILD HAVE ANY **HEARING DIFFICULTY**?  
   **YES** 1  **NO** 2  
   F3 a) HAS THE HEARING EVALUATION BEEN DONE?  
   **YES** 1  **NO** 2  

   F3 b) IF YES DOES YOUR CHILD HAVE A HEARING LOSS:  
   **YES** 1  **NO** 2  **DON’T KNOW** 3  

**SECTION G PATHWAY OF CARE**

G1 WHO FIRST IDENTIFIED THE CLEFT?  
   **DOCTOR** 1  **NURSE** 2  **PARENT** 3  **IF OTHER** SPECIFY__________________  

G1a) AT WHAT AGE WAS YOUR CHILD’S CLEFT FIRST IDENTIFIED?  
   Just born 1  Within three months 2  Four to twelve months 3  More than twelve months 4  

G1 b) AT WHAT AGE WAS YOUR CHILD FIRST SEEN BY THE PLASTIC SURGEON?  
   Just born 1  Within three months 2  Four to twelve months 3  More than twelve months 4
G2 IS YOUR CHILD BEING FOLLOWED-UP BY THE FOLLOWING PROFESSIONALS?

<table>
<thead>
<tr>
<th>Health care professional</th>
<th>YES</th>
<th>NO</th>
<th>If Yes, Hospital Unit no/ Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>G2a. Plastic Surgeon</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2b. Paediatrician</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2c. ENT Specialist</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2d. Speech Therapist &amp; Audiologist</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2e. Dentist</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2f. Orthodontist</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2g. Social Worker</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2h. Psychologist</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2i. Nutritionist</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>G2j. Other</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

G3 DO YOU SEE MORE THAN ONE OF THE ABOVE PROFESSIONALS AT THE SAME TIME AND PLACE?  
YES 1  NO 2

If yes specify ________________________________

Principal Investigator: Mrs R. Gopal _______________  Date: ___________________
APPENDIX VI

THE COMMUNICATION ASSESSMENT PROTOCOL
COMMUNICATION ASSESSMENT PROTOCOL

FOR YOUNG CHILDREN

WITH

CLEFT LIP AND/OR PALATE (CL/P)

Mrs. R. Gopal
Senior Speech-Language Therapist & Audiologist
ENT Hospital, Vacoas, Mauritius

University of Pretoria

July 2006
Please read carefully

Below is a list of instructions you are requested to follow when carrying out the complete assessment of the child with cleft lip and/or palate (CL/P).

(i) This Protocol contains six sections:

- **Section A:** Summary sheet
- **Section B:** Feeding
- **Section C:** Hearing Evaluation
- **Section D:** Orofacial Examination
- **Section E:** Communication, speech and language
- **Section F:** General development

(ii) Indicate your choice of response with ‘X’ in the appropriate box □ and provide descriptions whenever required.

(iii) The children participating in the study have been divided in two groups:
- **Group 1:** younger than 36 months (All six sections to be completed)
- **Group 2:** 36-72 months (five sections to be completed, omitting section B: Feeding)

(iv) Special considerations:

(a) For **Section C:** the Hearing evaluations to be carried out need to be age appropriate. Where not applicable write NA.
   - **Question C8**, listening evaluation scale is to be completed as described: Situation 1 during communication evaluation
   - Situation 2 with reference to hearing evaluation

(b) For **Section E:** Resonance, voice and speech assessment only for children who can express themselves in sentences.
   Kindly arrange with Mrs. R. Gopal when you need to make audio and video recordings of the speech of children 36-72 months.

(v) After completing the assessment, please record a summary of the communication assessment on Page 1.

(vi) Please enclose the essential background information of this child with CL/P (questionnaire A), whom you will be assessing.

Thank you very much for your cooperation.

Mrs. R. Gopal
ENT Hospital
Tel: 6863854
# Communication Assessment Protocol for Young Children with Cleft Lip and/or Palate in Mauritius

Tracking form to be completed by the speech-language therapist and audiologist

## A. SUMMARY SHEET

<table>
<thead>
<tr>
<th>A1. Child’s Name:</th>
<th>…………………………………………………………</th>
</tr>
</thead>
<tbody>
<tr>
<td>d d m m y y</td>
<td></td>
</tr>
<tr>
<td>A2. File Number:</td>
<td>………………………</td>
</tr>
<tr>
<td>A3. D.O.B:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>A4. Contact person’s name and telephone number: ………………… (Office use only)</td>
<td></td>
</tr>
</tbody>
</table>

## A5. Type of cleft:

1. Lip only [ ]  
2. Palate only [ ]  
3. Lip and palate [ ]  
4. Submucous cleft palate [ ]

Please specify
- Unilateral [ ]
- Bilateral [ ]
- Complete [ ]
- Incomplete [ ]

For **Unilateral Cleft Lip** please specify
- Right [ ]
- Left [ ]

For **Cleft Palate** please specify:
- Hard [ ]
- Soft [ ]

## A6. Syndrome:

1. Non-syndromic CL/P [ ]
2. Suspect syndrome [ ]
3. Syndrome present [ ]

If syndrome is present, describe……………………………………………………………

## Section: Area of Assessment

<table>
<thead>
<tr>
<th>Section</th>
<th>Dates of Assessment</th>
<th>SLT and/or Audiologist</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A:</td>
<td>Questionnaire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B:</td>
<td>Feeding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Pre-surgical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii) Post-surgical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:</td>
<td>Hearing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) 0-36 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii) 36-72 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D:</td>
<td>Orofacial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E:</td>
<td>Communication Speech-Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) 0-36 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii) 36-72 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F:</td>
<td>General Development</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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B1. Child’s Name: ………………………………………………………………..

B2. File number: …………………………………………………………………

B3. D.O.B: ………………………………………………………………..

B4. Date of assessment: dd mm yy

B5. Age: …….days/months

Birth history:

B6. Birth weight: ………….kg

B7. Gestational age weeks

B8. Delivery type: ………………………………………………………………………

B9. Any significant antenatal history ……………………………………………

Respiration:

B10. Assisted ventilation after birth: 1. yes 2. no

B11. Infant still has respiratory problems: 1. yes 2. no

Current feeding method:

B12. Current feeding method: 1. full oral diet 2. nil by mouth 3. oral feeds and supplementary 4. NG or OG tubes

B13. If full oral diet: 1. breast 2. bottle 3. cup 4. spoon 5. syringe 6. other if other describe…………………………

B14. Type of milk: 1. breast milk 2. formula milk

B15. If bottle-fed indicate:

(i) texture of teat: normal soft latex silicone

(ii) hole of teat: small medium large cross cut

(iii) bottle: standard soft other if other describe.

Observations during feeding:


B17. Predominant infant state during feeding: 1. alert and calm 2. alert and restless

3. light sleep/drowsy 4. deep sleep

5. irritated 6. crying

B18. Positioning for feeding:

1. appropriate

2. inappropriate

(e.g. child’s head position, caregiver position uncomfortable)
**B19. Lip seal:**
1. sufficient  
2. insufficient  
3. absent

**B20. Nutritive sucking:**
1. rhythmical  
2. arrhythmical  
3. no sucking

**B21. Coordination of sucking, swallowing and breathing:**
1. yes  
2. no

**B22. Aspiration risk:**
1. yes  
2. unsure  
3. no  
(for example: coughing/choking during feeding/ altered respiration)

**B23. Winding during and after feed:**
1. yes  
2. yes, but infrequent  
3. no

**B24. Nasal regurgitation:**
1. yes  
2. no

**B25. Presence of milk/formula in nostrils:**
1. yes  
2. no

**B26. Excessive drooling and/or vomiting:**
1. yes  
2. no

**Feeding schedule:**

**B27. Number of times the infant is fed in 24 hours:**

**B28. Duration of each feed:**
1. less than 15 minutes  
2. 15-30 minutes  
3. more than 30 minutes

**B29. Do the parent/carer’s cope with infant’s feeding:**
1. yes  
2. no

If no, please describe the difficulties………………………………………………………………………………

**B30. Child’s weight /growth within normal limits:**
1. yes  
2. no

(according to health card of the infant)

**Transition phase (infants and/or toddlers on semi-solid) Please complete if child on semi-solid diet**

**B31. Smooth transition to semi solid diet:**
1. yes  
2. no  
If no, explain…………………………

If yes biting, chewing and swallowing movements
1. normal  
2. abnormal  
If abnormal, describe…………………………………………………………………………………………………………………

**B32. Excessive drooling and/or vomiting:**
1. yes  
2. no

**B33. Nasal regurgitation:**
1. yes  
2. no  
3. occasional for liquids only

**B34. Child’s weight /growth within normal limits for age:**
1. yes  
2. no

(according to health card of the infant)

**B35. Guidelines to parent/care giver regarding:**
1. feeding method  
2. equipment used  
3. positioning  
4. feeding schedule  
5. other

If other, describe………………………………………………………………………………………………………………

**B36. Feeding difficulties and high risk for poor weight gain:**
1. yes  
2. unsure  
3. no

If unsure or no, recommendation, refer to:
1. paediatrician  
2. nutritionist
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B37.</td>
<td>Child’s Name: .................................................................</td>
<td></td>
</tr>
<tr>
<td>B38.</td>
<td>File number: .................</td>
<td>B39.</td>
</tr>
<tr>
<td>B40.</td>
<td>Date of assessment: ..........</td>
<td>B41.</td>
</tr>
<tr>
<td>B42.</td>
<td>Dates of surgery: ..............</td>
<td>Type of repair: ................... Surgeon: ...............</td>
</tr>
<tr>
<td>B43.</td>
<td>Lips: 1. unremarkable 2. restricted movements 3. open mouth posture 4. drooling</td>
<td></td>
</tr>
<tr>
<td>B44.</td>
<td>Tongue movements while feeding 1. normal 2. abnormal</td>
<td></td>
</tr>
<tr>
<td>B45.</td>
<td>Oronasal fistula 1. yes 2. no</td>
<td></td>
</tr>
<tr>
<td>B46.</td>
<td>Nasal regurgitation 1. yes 2. occasional for liquids only 3. no</td>
<td></td>
</tr>
<tr>
<td>B47.</td>
<td>Biting, chewing and swallowing movements 1. normal 2. abnormal</td>
<td></td>
</tr>
<tr>
<td>B48.</td>
<td>Food aversion (to certain foods) 1. yes 2. no</td>
<td></td>
</tr>
<tr>
<td>B49.</td>
<td>Oral hygiene 1. good 2. adequate 3. inadequate 4. poor</td>
<td></td>
</tr>
<tr>
<td>B50.</td>
<td>Frequent history of chest infections: 1. yes 2. no</td>
<td></td>
</tr>
<tr>
<td>B51.</td>
<td>Child’s weight /growth within normal limits for age (according to health card of the infant) 1. yes 2. no</td>
<td></td>
</tr>
<tr>
<td>B52.</td>
<td>Feeding difficulties and high risk for poor weight gain: 1. yes 2. unsure 3. no</td>
<td></td>
</tr>
<tr>
<td>If unsure or no, recommendation refer to: 1. paediatrician 2. nutritionist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53.</td>
<td>Guidelines to parent/care giver regarding feeding: .................................................................</td>
<td></td>
</tr>
</tbody>
</table>
C1. Child’s Name: ..............................................................................................................

C2. File number: ...............................  C3. D.O.B:  

C4. History of ear surgery:  
1. yes ☐  2. no ☐ 
If yes, please specify type and date of surgery.................................................................

C5. Any history of ear infections and/or ear aches  
1. yes ☐  2. no ☐ 

C6. External ear anomaly  
1. yes ☐  2. no ☐ 
If yes, describe (e.g. ear tags, atresia, malformation of the pinna).................................

C7. Risk factors other than cleft palate associated with hearing loss  
1. yes ☐  2. no ☐ 
If yes, check (X) the risk factor/factors:  
a. family history of childhood sensorineural hearing loss ☐  
b. premature/ birth weight less than 1.5 kgs ☐  c. low APGAR scores ☐  
d. high bilirubin levels ☐  e. bacterial meningitis ☐  
f. maternal history of viral infections during pregnancy (eg. gentamycin) ☐  
g. ototoxic medication ☐  
h. presence of Pierre Robin sequence or a syndrome ☐  i. respiratory distress ☐  
(known to include sensorineural hearing loss) ☐  
j. prolonged mechanical ventilation for more than 10 days ☐  
k. Any other risk factor for sensorineural hearing loss ☐  
Please specify.........................................................................................................................

C8. Based on Listening evaluation scale (Hugo, Louw, Kritzinger & Smit 2000)

<table>
<thead>
<tr>
<th>Situation 1: During communication evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction to</td>
</tr>
<tr>
<td>Environmental sounds</td>
</tr>
<tr>
<td>Whispered speech</td>
</tr>
<tr>
<td>Non-speech sounds (toys)</td>
</tr>
<tr>
<td>Speech</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Situation 2: During hearing evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responses</td>
</tr>
<tr>
<td>Distractibility</td>
</tr>
<tr>
<td>Age appropriate Hearing evaluations</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>C9. Parental report regarding auditory behaviour</td>
</tr>
<tr>
<td>C10. Listening evaluation scale (Hugo, Louw, Kritzinger &amp; Smit 2000)</td>
</tr>
<tr>
<td>C11. TEOAE (Screening)</td>
</tr>
<tr>
<td>C12. BSERA: Diagnostic</td>
</tr>
<tr>
<td>C13. Behaviour Observation Audiometry</td>
</tr>
<tr>
<td>C14. Tympanometry</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>C15. Acoustic Reflexes</td>
</tr>
<tr>
<td>C16. Pure Tone Audiometry</td>
</tr>
</tbody>
</table>

**C 17. If hearing loss is detected,**

C17(i) Type: 1. conductive □ 2. sensorineural □ 3. mixed □
C17(ii) Hearing loss in: 1. right ear □ 2. left ear □ 3. bilateral □
C17(iii) Severity of hearing loss: 1. mild (15-30 dB HL) □ 2. moderate (30-50 dB HL) □ 3. severe (50-70 dB HL) □ 4. profound (>70 dB HL) □

**C 18. Recommendations refer to ENT specialist for follow-up**

1. yes □ 2. no □

If yes name and file number for ENT specialist follow-up...  ............................................

**C 19. Child will need referral for hearing aid/aids**

1. yes □ 2. unsure □ 3. no □

**C 20. Follow-up appointment with audiologist**

1. yes □ 2. no □
D1. Child’s Name: ………………………………………………………………………………………………………

D2. D.O.B: ___________________________   __________________________________________ D3. Age: ……..…. months

D4. Date of assessment: ___________________________   __________________________________________

D5. Dates of surgery: ___________________________   __________________________________________ Type of repair: ………… Surgeon: …………

D6. Date of assessment: ___________________________   __________________________________________ Type of repair: ………… Surgeon: …………

D7. Date of assessment: ___________________________   __________________________________________ Type of repair: ………… Surgeon: …………

D6. Face and facial profile: 1. unremarkable □  2. asymmetrical □  3. dysmorphic features □


D8. Relationship between maxilla and mandible: 1. normal □

2. abnormal □ if abnormal please describe………

D9. Eyes: 1. appear normal □

2. appearance suggestive of syndrome/midfacial developmental problems □

(e.g. excessive epicanthal folds, abnormal spacing between the eyes)

describe……………………………………………………………………………………………………

D10. Ears: 1. appear normal □  2. external ear deformity □ describe……………………………………

3. appearance suggestive of syndrome (e.g. low set ears) □ describe……………………………………

D11(i) Nose: 1. unremarkable □  2. nasal bridge flat □  3. deviated septum □

4. obstructed nasal airway □

D11(ii) Nasal columella: 1. normal □  2. appears abnormal (e.g. too short/absent/deviated) □

D12(i) Dentition: 1. unremarkable □  2. supernumerary teeth □  3. teeth missing □  4. other □

If other describe…………………………………………………………………………………………

D12(ii) Occlusion: 1. normal □  2. overbite □  3. under bite □  4. crossbite teeth □  5. open bite □

D12(iii) Dental Hygiene: 1. good □  2. adequate □  3. poor □

D13 Lips: (i) appearance 1. unremarkable □  2. scarring □  3. open mouth posture □
D13 (ii) speech tasks:  

- Yes  
- No

D14. Tongue:  

- Appearance  
- Unremarkable  2. Suggestive of syndrome (e.g. size)

- Abnormal posture  
- Frenum abnormal

D14. (ii) Speech tasks:  

1. Mobility for tongue tip sounds /t/ /d/ /n/  
- Yes  
- No

2. Mobility for velar sounds /k/ /g/  
- Yes  
- No

**Post palate repair:**

D15. Alveolar ridge:  

- Normal  
- Wide  
- Collapsed  
- Cleft

D16. Palatal fistula:  

- Present  
- Absent

D16(i) If fistula is present, location:  

1. Soft palate  
2. Junction soft/hard palate  
3. Hard palate-post sulcus  
4. Buccal sulcus  
5. Hard palate and buccal sulcus  
6. If other

D16(ii) Fistula size:  

1. Small  
2. Medium  
3. Large  
4. Complete breakdown of repaired palate

D16(iii) Is oronasal fistula interfering with speech sound production:  

- Yes  
- No

D16(iv) Soft palate:  

- Normal  
- Apparently short velum  
- Split uvula

D17. Palatal mobility  

1. Marked  
2. Moderate  
3. Slight  
4. None

D18. Nasopharynx:  

- Appears normal  
- Apparently deep pharynx  
- Tonsils appear enlarged  
- Pharyngeal flap

D19. Any airway obstruction suspected:  

- Yes  
- No

 엄청나게 소리를 많이 들리는, 지엔스해서 기를 끌어당기는, 지엔스해서 기를 끌어당기는

D20. Contributing factors to speech production errors:  

D20(i) Abnormal lip movements  
D20(ii) Abnormal tongue movements

D20(iii) Abnormal dentition  
D20(iv) Palatal fistula

D20(v) Suspected VPI  
D20(vi) Suspected syndrome

D20(vii) Any other etiology suspected  
D20(viii) None

D21. Referral for dental follow-up  

- Yes  
- No

D22. Referral for ENT specialist’s opinion (tonsils)  

- Yes  
- No

D23. Any other referral please specify... (for e.g. genetic testing, pediatrician)
E1. Child’s Name: ……………………………………………………………………………………………………………………………

E2. D.O.B: d d m m y y 

E3. Age:…………….months

E4. Date of assessment: d d m m y y

E5. Dates of surgery

<table>
<thead>
<tr>
<th>d d m m y y</th>
<th>Type of repair:………………… Surgeon………………..</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>


E7. Parental concerns regarding communication…………………………………………………………………………………………………………………………………………………………..
…………………………………………………………………………………………………………………………………………………………..
…………………………………………………………………………………………………………………………………………………………..

E8. Communication skills (based on Communication Assessment Protocol Facial Deformities Clinic University of Pretoria)

E8(i) Non-verbal communication
  (e.g. eye contact, social smile, facial expressions) 1. yes 2. unsure 3. no

E8(ii) Behaviour regulation
  (e.g. requests objects, requests action, protests) 1. yes 2. unsure 3. no

E8(iii) Social interaction
  (e.g. requests attention, calls a person) 1. yes 2. unsure 3. no

E8(iv) Shared attention
  (e.g. comments, requests information, explanations) 1. yes 2. unsure 3. no

E8(v) Discourse structure
  (e.g. turn taking, imitation, responds) 1. yes 2. unsure 3. no

E8(vi) Mode of communication
  (e.g. gestures, vocal, gestures and verbal) 1. yes 2. unsure 3. no
E9. Therapist’s observations: Major milestones of language acquisition (Shipley, 2004 p.233)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Typical Language Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 mos.</td>
<td>Startle response to sound; quieted by human voice</td>
</tr>
<tr>
<td>2-3 mos.</td>
<td>Cooing; production of some vowel sounds; response to speech; babbling</td>
</tr>
<tr>
<td>4-6 mos.</td>
<td>Babbling strings of syllables; imitation of sounds; variations in pitch and loudness</td>
</tr>
<tr>
<td>7-9 mos.</td>
<td>Comprehension of some words and simple requests; increased imitation of speech sounds; may say or imitate ‘mama’</td>
</tr>
<tr>
<td>10-12 mos.</td>
<td>Understanding of ‘No’; response to requests; response to own name; production of one or more words</td>
</tr>
<tr>
<td>13-15 mos.</td>
<td>Production of five to ten words, mostly nouns; appropriate pointing responses</td>
</tr>
<tr>
<td>16-18 mos.</td>
<td>Following simple directions; production of two-word phrases; production of I or mine</td>
</tr>
<tr>
<td>24-30 mos.</td>
<td>Response to some yes/no questions; naming of everyday objects; production of phrases and incomplete sentences; production of the present progressive, prepositions, regular plurals, and negation ‘no’ and don’t</td>
</tr>
</tbody>
</table>

E9. Language development: 1. no concerns □  2. suspect □  3. delayed/disordered □
(Receptive and expressive)

E10. Consonant Inventory

<table>
<thead>
<tr>
<th></th>
<th>NASAL</th>
<th>PLOSIVE</th>
<th>FRICATIVE</th>
<th>APPROXIMANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>LABIAL</td>
<td>m</td>
<td>p</td>
<td>b</td>
<td>w</td>
</tr>
<tr>
<td>LABIO DENTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALVEOLAR</td>
<td>n</td>
<td>t</td>
<td>d</td>
<td>s</td>
</tr>
<tr>
<td>POST ALVEOLAR</td>
<td></td>
<td></td>
<td></td>
<td>l</td>
</tr>
<tr>
<td>VELAR</td>
<td>ñ</td>
<td>k</td>
<td>g</td>
<td></td>
</tr>
<tr>
<td>GLOTTAL</td>
<td></td>
<td></td>
<td></td>
<td>?</td>
</tr>
</tbody>
</table>

Heard by therapist □  Reported by parents □

* phoneme /r/ is not expected before 36 months. Some other phonemes for e.g. /tʃ/ and /ʃ/ are absent in Creole.

E10. Consonant repertoire (based on consonant production inventory):

1. age appropriate □  2. limited □  3. no identifiable consonants □
E11. Emergent literacy skills:

E11(i) Parents have introduced the child to books: 1. yes ☐ 2. no ☐
E11(ii) Child responds to being read to: 1. yes ☐ 2. no ☐
E11(iii) Child shows an interest in books: 1. yes ☐ 2. no ☐
E11(iv) Child pretends to read books: 1. yes ☐ 2. no ☐

E12. Recommendations for further in depth communication assessment ☐
E13. Parental guidance regarding consonant production by the child ☐
E14. Parental guidance regarding emergent reading skills ☐
E 15. Child’s Name: …………………………………………………………………………………………………………

E 16. D.O.B: d d m m y y

E 17. Age: ……………. months

E 18. Date of assessment: d d m m y y

E 19. Dates of surgery: d d m m y y Type of repair: ……………… Surgeon ………………
Dates of surgery: d d m m y y Type of repair: ……………… Surgeon ………………
Dates of surgery: d d m m y y Type of repair: ……………… Surgeon ………………


E 21. Is child exposed to any other languages (for e.g. at school) please specify……………………………………

E 22. The child usually expresses himself/herself in:

1. sentences □ 2. short phrases □ 3. single words □ 4. gestures □

E 23. Parental concerns regarding communication………………………………………………………………………. ,
…………………………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………………………

E24. Therapist’s observations: Major milestones of language acquisition (Shipley, 2004 p.233)

Age Range Typical Language Behaviours
3:0 –3:6 yrs. Production of three- to four-word sentences; production of the possessive morpheme,
several forms of questions, negatives ‘can’t’ and ‘don’t’; comprehension of ‘why’, ‘who’,
‘whose’ and ‘how many’ and initial production of most grammatical morphemes.
3:6- 6 yrs Greater mastery of articles, different tense forms, copula, auxiliary, third person singular,
and other grammatical morphemes; production of grammatically complete sentences.

E24. Language expressive 1. no concerns □ 2. suspect □ 3. delayed/disordered □

E 25. Emergent literacy skills:
E25(i) Shows an interest in books and reading 1. yes □ 2. no □
E25(ii) Listens attentively to parent/teacher reading 1. yes □ 2. no □
E25(iii) Is sensitive to some sequences of events in a story: 1. yes □ 2. no □
E25(iv) Correctly answers questions about stories read aloud 1. yes □ 2. no □
E25(v) Displays attempts at reading: 1. yes □ 2. no □
E25(vi) Recognises and can name a few letters 1. yes □ 2. no □
If child is expressing himself/herself in sentences (E 22), proceed with the auditory-perceptual assessment for **resonance, voice and speech** (GOS.SP.ASS. ’98)

Stimulus: Counting 1-5 (10). Picture description 1 minute (standard sea side scene)

Conversation 2 minutes (standard questions to elicit spontaneous continuous speech)

Audio recording reference number………..…… Video recording reference number…………

**Rating scale for E26, E27, E28 as per GOS.Sp.ASS ’98.**

### E26. Resonance

#### E26(i) Hypernasal

<table>
<thead>
<tr>
<th>1. yes</th>
<th>2. no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal tone</td>
<td>0</td>
</tr>
<tr>
<td>Hypernasal voice perceived on vowels and approximants</td>
<td>1</td>
</tr>
<tr>
<td>Hypernasal tone of vowels, weakened consonants and nasalisation of voiced consonants</td>
<td>2</td>
</tr>
<tr>
<td>All the above and substitution of /b, d, g/ by /m, n, η/</td>
<td>3</td>
</tr>
</tbody>
</table>

#### E26(ii) Hyponasal

<table>
<thead>
<tr>
<th>1. yes</th>
<th>2. no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal tone</td>
<td>0</td>
</tr>
<tr>
<td>Moderate hyponasality where nasal consonants are slightly denasal</td>
<td>1</td>
</tr>
<tr>
<td>Nasal consonants are perceived as plosives</td>
<td>2</td>
</tr>
</tbody>
</table>

#### E26(iii) Mixed Nasality

(hyper and hyponasality co-occur)

<table>
<thead>
<tr>
<th>1. yes</th>
<th>2. no</th>
</tr>
</thead>
</table>

### E27 Nasal Emission/Turbulence

<table>
<thead>
<tr>
<th>1. yes</th>
<th>2. no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasal emission/turbulence absent</td>
<td>0</td>
</tr>
<tr>
<td>Slight nasal emission/slight nasal turbulence</td>
<td>1</td>
</tr>
<tr>
<td>Marked nasal emission/distracting nasal turbulence</td>
<td>2</td>
</tr>
</tbody>
</table>

**Mirror Test**

<table>
<thead>
<tr>
<th>R</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>papa</td>
<td>pipi</td>
</tr>
<tr>
<td>kaka</td>
<td>kiki</td>
</tr>
<tr>
<td>sssss</td>
<td></td>
</tr>
</tbody>
</table>

### E28. Grimace

<table>
<thead>
<tr>
<th>1. yes</th>
<th>2. no</th>
</tr>
</thead>
<tbody>
<tr>
<td>No grimace</td>
<td>0</td>
</tr>
<tr>
<td>Nasal flare</td>
<td>1</td>
</tr>
<tr>
<td>Nasal grimace involving the nostrils and upper lip</td>
<td>2</td>
</tr>
<tr>
<td>Facial grimace which includes the mid and upper face</td>
<td>3</td>
</tr>
</tbody>
</table>

### E29. Voice

<table>
<thead>
<tr>
<th>1. normal</th>
<th>2. dysphonia</th>
</tr>
</thead>
</table>

E29(i) If child has dysphonia then request the child to phonate vowels /a/ /o/ and /i/ and describe:

a. voice quality (for e.g. hoarse, breathy)...........................................................................................................
E29(ii) Parental report of vocal abuse: 1. yes ☐ 2. no ☐

E 30. **Speech**

**Consonant Production** (repetition of words and sentences; from speech elicitation material included with instructions to participants)

Please indicate (+) if sound is correctly articulated, (-) if error in sound articulation.

Analyse the consonants that were indicated as (-) and in E29 note the type of errors

<table>
<thead>
<tr>
<th>Labial</th>
<th>Labiodental</th>
<th>Alveolar</th>
<th>Post-alveolar</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td>p</td>
<td>b</td>
<td>f</td>
<td>v</td>
</tr>
<tr>
<td>n</td>
<td>t</td>
<td>d</td>
<td>l</td>
<td>s</td>
</tr>
<tr>
<td>z</td>
<td>j</td>
<td>3</td>
<td>n</td>
<td>k</td>
</tr>
<tr>
<td>g</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SIWI

SFWF

Sentences

E 31. **Cleft Speech Characteristics:**

1. yes ☐ 2. unsure ☐ 3. no ☐

If yes type of errors:

E31(i) Anterior oral CTCs e.g. ................................................................. ☐

E31(ii) Posterior oral CTCs e.g................................................................. ☐

E31(iii) Non oral CTCs e.g................................................................. ☐

E31(iv) Passive CTCs e.g................................................................. ☐

E 32. Developmental errors:

1. yes ☐ 2. unsure ☐ 3. no ☐

If yes e.g. ...........................................................................................................

E 33. **Visual appearance of speech**

1. unremarkable ☐ 2. asymmetry of facial movement ☐

3. tight upper lip ☐ 4. tongue tip appearing ☐

Identifiable etiology of communication, speech and language impairment in conjunction with C] hearing evaluations and D] orofacial examination

E34(i) Hearing loss ☐

E34(ii) Developmental delay ☐

E34(iii) Oral fistula ☐

E34(iv) Dentition abnormal ☐

E34(v) Syndrome ☐

E34(vi) Other specify………..

E 35 **Recommendation:** Regular Speech-language therapy

1. yes ☐ 2. no ☐
**F. General Development**

**F1.** Child’s Name: .................................................................

**F2.** File number: .......................................................  

**F3.** D.O.B: 

**F4.** Date of assessment: 

**F5.** Age: ................. months

**F6.** Speech-language therapist’s opinion regarding motor development (based on developmental milestones for example: sitting, walking..)

1. normal □  
2. delayed □

**F7.** Parental report/observations of the child playing with toys (for eg. imitation, symbolic play, exploratory play)

1. age appropriate □  
2. need for further in depth assessment □

**F8.** Social interactions as reported by parents (e.g. interactive, shy, aggressive, uncooperative)

1. normal □  
2. need for further in depth assessment □

**F9.** Educational history:

i) Is the child attending a school:  

1. yes □  
2. no □  

If yes, is the child in:

1. day care center □  
2. pre-primary school □  
3. primary school □  
4. special school □

ii) Is the child coping academically/preacademically

1. yes □  
2. unsure □  
3. no □  

(based on parental and/or school report)

**F10.** Does the parent have any concerns regarding child’s development  

1. yes □  
2. no □

If yes, describe parental concerns regarding general development of the child

**F11.** Provide any additional information that might be helpful in this assessment

**F12. Recommendations: refer for in-depth assessment by:**

- Paediatrician □  
- Occupational Therapist □
- Clinical Psychologist □  
- Other □  
- please specify………”
The Communication Assessment Protocol has been compiled by Mrs. R. Gopal based on literature review and the following main sources:

**Section B**: Feeding assessment is based on:
Masarei, A., Wright, S., Hughes, J., & Lake, R., 2004 “Initial feeding assessment for Newborn Infants with cleft lip and or palate”: North Thames Regional Cleft Team, UK.

**Section C**: Hearing evaluations are based on:
ASHA ‘Joint Committee on Infant Hearing Year 2000 Position statement’

**Section D**: Orofacial examination is based on:

**Section E**: Communication, speech-language assessment is based on:
Communication Assessment Protocol Facial Deformities Clinic, University of Pretoria
Consonant Inventory as devised by the Thameside community heath care NHS trust
Snow C.E., Burns, M.S., Griffin, P., 1998, Preventing Reading Difficulties in Young Children Washington, National Academy Press

**Section F**: General Development is based on case history form for children in:
APPENDIX VII

SPEECH MATERIAL FOR ELICITING SPEECH
Creole, French and English words and sentences for eliciting a speech sample

Following is the list of words and sentences that have been prepared in Creole based on Eurocran speech project guidelines (http://www.eurocran.org/content) for speech elicitation materials that are standard cross-linguistically. The French translations are provided in *italics*.

**Creole and French (*in italics*) word list**

<table>
<thead>
<tr>
<th>Initial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>[m] marto (<em>marteau</em>)</td>
<td>lagom (<em>gomme</em>), lasam (<em>chambre</em>)</td>
</tr>
<tr>
<td>[p] poul (<em>poule</em>), poupet (<em>poupée</em>)</td>
<td>lasoup(<em>soupe</em>), lalamp (<em>la lampe</em>)</td>
</tr>
<tr>
<td>[b] bol (<em>bol</em>), boul (<em>boule</em>)</td>
<td>rob (<em>robe</em>), latab (<em>table</em>)</td>
</tr>
<tr>
<td>[f] fey (<em>feuille</em>)</td>
<td>bef (<em>boeuf</em>), dizef (<em>oeuf</em>)</td>
</tr>
<tr>
<td>[v] ver (<em>verre</em>)</td>
<td>mov (<em>mauve</em>), lalev (<em>lèvre</em>)</td>
</tr>
<tr>
<td>[n] nene (<em>nez</em>), navir (<em>navire</em>)</td>
<td>ravann (<em>ravane</em>), laline (<em>lune</em>)</td>
</tr>
<tr>
<td>[t] tapi (<em>tapis</em>), torti (<em>tortue</em>)</td>
<td>latet (<em>tête</em>), savat (<em>savate</em>)</td>
</tr>
<tr>
<td>[d] desin (<em>dessin</em>), dokter (<em>docteur</em>)</td>
<td>lapoud (<em>poudre</em>), koud (<em>coude</em>)</td>
</tr>
<tr>
<td>[l] lili (<em>lit</em>), lapin, loto</td>
<td>lekol (<em>école</em>), disel (<em>sel</em>)</td>
</tr>
<tr>
<td>[s] soley (<em>soleil</em>), seve (<em>cheveux</em>)</td>
<td>labous (<em>bouche</em>), tas (<em>tasse</em>)</td>
</tr>
<tr>
<td>[z] zako (<em>singe</em>), zero, zoli</td>
<td>rouz (<em>rouge</em>), zimaz (<em>image</em>), lagorz</td>
</tr>
<tr>
<td>[k] kado (<em>cadeau</em>), koki (<em>coquille</em>)</td>
<td>sak (<em>sac</em>), labek (<em>bec</em>)</td>
</tr>
<tr>
<td>[g] gato (<em>gâteau</em>)</td>
<td>bag (<em>bague</em>), lareg (<em>règle</em>)</td>
</tr>
<tr>
<td>[gn] * No [gn] in word initial position</td>
<td>pagne</td>
</tr>
</tbody>
</table>
Creole sentences

/m/ Mo mami pe dormi dan lasame
/p/ Popo faire pipi dans pot
/b/ Bebe so biberon lor latab
/f/ Fifi pe ferme lafnet / Fifi pe frire dizef
/v/ Dev ek Vina viv dan vilaz
/n/ Nelly donne li ene ti banane
/t/ Toto pe gratte so latet
/d/ Dadi pe dodo endans
/l/ Soley levé la-haut dan leciel
/s/ Soonil pe lapsse poisson dan bassin
/z/ Enn ti zwazo dan lakaz pe bate lezel
/dj/ Jenny ena so badge lor so jean
/k/ Karina kas koko zet so lakok
/g/ Maggy goute gateau la
**French sentences** (compiled from: Trouble de l’articulation, Equipe du Centre d’Orthophonie, Etienne Coissrd, by Mrs. R. Gopal)

/m/  Maman mange à midi
/p/  Apporte un petit pot
/b/  Bébé a une belle robe
/f/  Fifi fera du café
/v/  Tu vas vite
/n/  Bonne année!
/l/  Il est malade depuis lundi
/t/  Ta tortue est toute petite
/d/  Didier a une idée
/s/  C’est assez salé
/z/  Les oiseaux gazouillent dans les arbres
/J/  Le chocolat est chaud
/j/  J’ai bien joué dans la neige
/k/  Quel beau bouquet
/g/  Apporte un légume pour le ragout
Mum came home early.
The puppy is playing with the rope
Bob is a baby boy
The phone fell off the shelf
Dave is driving a van
Neil saw a robin in the nest
A ball is like a balloon
Tim is putting on a hat
Daddy mended a door
I saw Sam sitting on a bus
The zebra was at the zoo
John’s got a magic badge
Karen is making a cake
Gary’s got a bag of lego
Appendix G (continued): Sample of pictures (Creole list of words)

/m/

/marto/

/lagom/

/p/

/poul/

/lalamp/

/b/

/boul/

/latab/
APPENDIX VIII

QUESTIONNAIRE FOR SPEECH LANGUAGE THERAPISTS
AND AUDIOLOGISTS
Development of a Communication Assessment Protocol for Young Children with Cleft Lip and/or Palate in Mauritius

**Aim of this research project:** To develop a Communication Assessment Protocol for Young Children (0-6 years) with Cleft Lip and/or Palate in Mauritius. This will help improve service delivery to children with CL/P and their families, monitor their progress objectively and document the treatment outcomes. In addition, Speech-Language Therapists and Audiologists working with children with CL/P will have an assessment tool that is appropriate, standardized and uniform.

**Aim of this questionnaire:** This questionnaire has two sections each with its own aim.

The aim of section I of the questionnaire is to determine perceptions of speech-language therapists and audiologists regarding the compiled assessment tracking form.

Section II, the aim is to gather feedback regarding the clinical applicability of this protocol from the speech-language therapists and audiologists after they have conducted the communication assessment protocol on children with CL/P.

**Instructions:** Please complete your biographical information. The questionnaire has two sections. Please indicate your choice or choices with an X, and provide descriptions. You should only complete Section II of this questionnaire after you have clinically assessed children with CL/P participating in this study.

Your opinions and input are very important, as they will influence the development of the protocol. In addition, testing the clinical applicability of the communication assessment protocol for children with CL/P will help improve the trustworthiness thereof.

Thank you very much for your co-operation.

Rachna Gopal
Senior Speech-Language Therapist and Audiologist
Ministry of Health, Mauritius
Biographical information of speech-language therapist and audiologist completing the questionnaire

Name:………………………………………………………………………………………………
Designation:………………………………….. Hospital:……………………………………

Your qualifications in Speech-Language Therapy & Audiology:
Bachelor’s degree □ Master’s degree □ Doctorate □ Other □ specify……

Years of experience as a Speech-Language Therapist & Audiologist……………………………..
Total number of children (0-72 months) currently receiving SLT services from you……………….
Number of children with CL/P currently receiving SLT services from you…………………………

Your prior experience in CL/P:
Extensive □ Average □ Limited □ None □

SECTION I
Preliminary evaluation of the Communication Assessment Protocol for children with CL/P

1. Did you complete the survey questionnaire Section A] part 1, of this study (April to August 2005) during which the essential background information of children with CL/P participating in this study was gathered?
   Yes □ No □ If no why not……………………………………………………………………………

If yes, in your opinion did the design of the questionnaire allow for accurate and essential capturing of the background information of children with CL/P and their families?
   Yes □ No □ If no, which other information would you like to include?
   …………………………………………………………………………………………………………………………………

2. After reviewing the proposed Communication Assessment Protocol for Young Children with CL/P Sections B to F please answer the following questions:

2.1 Do you find the Communication Assessment Protocol?
   Clear □ Unclear □ Unsure □
2.2 In your opinion, do all the areas (Sections B to F) namely feeding, hearing, orofacial examination, communication, speech-language and general development need to be assessed?

Yes □   Unsure □   No □

If no, which section would you like to exclude and why?

………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………

Would you like to include any other area of assessment?

Yes □   No □

If yes, list the area/areas of assessment you would like to include………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………

2.3 Do you feel competent to assess the child with CL/P in all of these areas?

Yes □   Yes but with additional training □   Unsure □   No □

If you would like additional training, please indicate in which of the following areas of assessment you would like training:

Section B] Feeding □   Section C] Hearing □   Section D] Orofacial examination □
Section E] Communication, speech and language □   Section F] General development □

If you answered unsure or no, please explain

………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………

3. Please refer to Section E] communication, speech, language assessment of the Communication Assessment Protocol and answer the following questions:

3.1 Do you feel that the content of this protocol is sufficient to provide an accurate perceptual assessment of speech characteristics of children with CL/P?

Yes □   Unsure □   No □

If answered unsure or no, please explain………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
3.2 Do you think that the rating system for resonance (rating scale: 0-3; E.26 to E.28 of the form) will be helpful in your perceptual judgments of nasality?

Yes ☐       Unsure ☐       No ☐

If answered unsure or no please explain………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………

3.3 Do you think that the descriptions of the cleft palate speech characteristics (anterior, posterior, non oral passive cleft type characteristics, developmental errors: E30 to E33 are:

Necessary  Yes ☐       Unsure ☐       No ☐
Clear       Yes ☐       Unsure ☐       No ☐
Accurate    Yes ☐       Unsure ☐       No ☐

3.4 The Communication Assessment Protocol requires that for group II children with CL/P (36-72 months) you make audio and video recordings of their speech. Would it be practical for you to carry out the recordings in your hospital context?

Yes ☐       No ☐ If no, please explain………………………………………………………………………………………………………
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3.5 Please, review Appendix 1 of the Communication Assessment Protocol. A list of Creole, French and English words and sentences are proposed as stimulus for eliciting speech responses from children with cleft lip and/or palate in group 2 (36-72 months). In your opinion, are these words and sentences appropriate?

Yes ☐       Unsure ☐       No ☐

If answered unsure or no, please indicate the words and/or sentences that you would like change and explain why………………………………………………………………………………………………………
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4. Do you feel that the length of the protocol is appropriate for use in your hospital context?

   Yes □  Unsure □  No □

Any comments please add. ........................................................................................................
........................................................................................................................................
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5. Do you have any further comments regarding the Communication Assessment Protocol for Young Children with CL/P?

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Thank you very much for your input regarding the communication assessment protocol

Date .........................
Please complete this section after conducting assessments on all the selected children with CL/P

SECTION II

Clinical Applicability of the Communication Assessment Protocol for Young Children with Cleft Lip and/or Palate in Mauritius

1. Did you complete the communication assessment protocol on children with CL/P from both age groups: group 1 younger than 36 months and group 2, 36-72 months?

Yes [ ] No [ ]

If no, please provide the reasons ……………………………………………………………………
………………………………………………………………………………………………………

If yes, please complete this table:

| Number of children younger than 36 months |  |
| Number of children 36-72 months |  |
| Total number of children |  |

2. Did you find that administering the communication assessment protocol was:

2.1 Suitable for use in the hospital context: Yes [ ] Unsure [ ] No [ ]

Please explain your answer…………………………………………………………………………
……………………………………………………………………………………………………

2.2 Detailed enough in the areas (sections B-F) that you assessed:

Yes [ ] Unsure [ ] No [ ]

Please explain your answer……………………………………………………………………
……………………………………………………………………………………………………

……………………………………………………………………………………………………
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……………………………………………………………………………………………………
2.3 You could assess the children with CL/P:
With ease □    With some difficulty □    With difficulty □

If some difficulty was experienced please indicate in which of the following area/areas:

Section B    Feeding □
Section C    Hearing □
Section D    Orofacial □
Section E    Communication speech and language □
Section F    General development □

Please explain the nature of difficulty you experienced
……………………………………………………………………………………………..
……………………………………………………………………………………………..
……………………………………………………………………………………………..
……………………………………………………………………………………………..

3. With reference to Section E) ii) auditory perceptual assessment of resonance and speech please answer the following:

3.1 Could you assess the resonance in terms of the rating scales?
With ease □    With some difficulty □    With difficulty □
Please explain your answer………………………………………………………………..
……………………………………………………………………………………………..
……………………………………………………………………………………………..

Could you describe the cleft type speech characteristics:
With ease □    With some difficulty □    With difficulty □
Please explain your answer………………………………………………………………
……………………………………………………………………………………………..
……………………………………………………………………………………………..
4. **Were any of the children non-compliant during assessment?**

   Yes [ ] No [ ]

   If yes, indicate in which area/areas of assessment…………………………………………………………
   ……………………………………………………………………………………………………………………………

   Please specify age group of the child/children…………………………………………………………
   ……………………………………………………………………………………………………………………………

   In your opinion what were the contributing factor/factors for non-compliance?………………
   ……………………………………………………………………………………………………………………………

5. **Do you feel that the results of the protocol could provide you with the intervention guidelines?**

   Yes [ ] Unsure [ ] No [ ]

   Please explain your answer……………………………………………………………………………………
   ……………………………………………………………………………………………………………………………

6. **Do you think that you will use this protocol in the future?**

   Yes [ ] Unsure [ ] No [ ]

   Please explain your answer……………………………………………………………………………………
   ……………………………………………………………………………………………………………………………
7. Do you have any further comments regarding the clinical applicability of the Communication Assessment Protocol for Young Children with C/L/P? Please add your comments and recommendations.

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Thank you very much for your participation and feedback.
| TOPICS | DESCRIPTIVE
<p>| Excerpts of representative quotes of the participants |
| --- | --- |
| <strong>TOPIC ONE</strong> | <strong>Overview of the Communication Assessment Protocol</strong> |
|  | The participants agreed that the communication assessment protocol is a complete and useful tool. |
|  | • ‘The protocol is complete…it includes various areas of assessment example feeding, hearing, general development in addition to the speech-language assessment’ |
|  | • ‘You can follow a child from the time he is born to the time all the operations are complete….I liked this longitudinal aspect’ |
|  | • ‘It has all the aspects needed for longitudinal assessment ….it helps to really focus on each area’ |
|  | • ‘The protocol is easy to use, simple and the checklist format renders the protocol user friendly’ |
|  | • ‘The layout of the form was very nice, simple, accessible and very well organised that is what helped me use the tool’ |
|  | • ‘I found that the participation of the parents formed an important part of the assessment’ |
|  | The constraints/problems that concerned the participants were; lack of apparatus at the various regional hospitals and unavailability of an assistant to help with the recordings. |
|  | • ‘I am based at Jeetoo Hospital and I do not have the audiology facility nor the video recording equipment …… I think we should make it a centre based assessment where the equipment and assistant are available’ |
|  | • ‘Some parents may have a problem to move to one centre’ |
|  | ‘Maybe we could plan in the future to have the equipment in our own clinic …’ |
| <strong>TOPIC TWO</strong> | <strong>Clinical applicability</strong> |
| Specific aspects | <strong>i) Training</strong> |
| The participants discussed their experiences when conducting the assessments |
| i) The participants found the training adequate |
|  | • ‘The video training was helpful, as we needed fine tuning into listening to the speech characteristics of children with CL/P’ |
|  | • ‘Initially it was scary as I am not used to analysing speech. Training, observing how the principal investigator conducts the assessments and later analysing the speech was helpful’ |
|  | • ‘We are speech-language therapists….and assess regularly, observing the principal investigator doing the assessment, analysing speech helped a lot’ |</p>
<table>
<thead>
<tr>
<th>ii) Communication Assessment tracking form and the speech elicitation material</th>
</tr>
</thead>
<tbody>
<tr>
<td>The participants made positive comments regarding the materials namely the tracking form and the speech elicitation materials.</td>
</tr>
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<table>
<thead>
<tr>
<th>iii) Apparatus</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of recordings was good and video recordings were useful in speech analysis.</td>
</tr>
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<td></td>
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<table>
<thead>
<tr>
<th>iv) Areas of assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The protocol was described as complete because all the areas of communication were assessed.</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Completing the assessment in one session was sometimes not possible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Initially the protocol appeared long but then with practice it became easier to conduct the assessment’</td>
</tr>
<tr>
<td>‘I think an assessment should go ½ hr. and sometimes it took me 40 minutes that is long for a child’</td>
</tr>
</tbody>
</table>
APPENDIX IX

FOCUS GROUP DISCUSSION
### v) Intervention

- ‘I do not think it will be a problem in clinical applicability as we are going to assess the child over a long time’
- ‘I found it takes time to test the baby’s hearing…. Sometimes they don’t respond…rapport has to be built… some children are difficult to condition for hearing evaluation’
- ‘I think the therapist who was working with the child should test the child….and of course parents are present as comforters’

The protocol was found to be useful in management of the children with CL/P

- ‘Feeding assessment made it easier to refer to dietician as we had concrete data’
- ‘At the end of the assessment we can be sure we need to make this referral….even …referrals to the [dentist](#)’
- ‘The protocol had an impact on management … before this protocol we would not have thought of asking parents whether the child is reading/looking at picture books’
- ‘It is a good tool to evaluate as therapy is ongoing’
- ‘It helps us to establish long term and short term goals’

### vi) Participation of the children during assessment

Most of the children could be assessed with ease but some of the children were difficult to assess

- ‘The parents were there as comforters….and helped the therapist’
- ‘Some children were shy and did not want to repeat the words’
- ‘Some children were hyperactive and did not repeat the words’
- ‘Babies could not be conditioned for hearing testing in one session’
- ‘Rapport with the child is very important… the therapist who provides therapy should assess and re-assess the child’

### TOPIC THREE

#### Clinical Acceptability

The participants unanimously affirmed that they would use the protocol in the future for assessments.

- ‘I think I will use this tool a lot in the future’
- ‘It is clinically applicable in the hospital context’
- ‘It saves time’
- ‘No formalised tools exist this is a formal test we now have. It is based on previous (international) research’
- ‘It is a good tool to evaluate progress in therapy’
- ‘We have a common base as all therapists will use this tool’
Potential expansion of the communication assessment protocol was discussed for example:

- ‘It can be used beyond 72 months’
- ‘I will use the articulation part for other articulation cases’
- ‘I could use the feeding assessment for children with feeding difficulties.’