






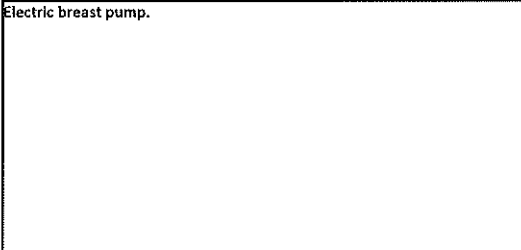
Quotation Advert

Opening Date: 2019-08-05 
Closing Date: 2019-08-14 
Closing Time: 11:00

INSTITUTION DETAILS



Institution Name: Edendale hospital 
Province: KwaZulu-Natal
Department or Entity: Department of Health
Division or section: Central Supply Chain Management
Place where goods / services is required: Edendale Hospital
Date Submitted: 2019-08-02 

ITEM CATEGORY AND DETAILS

Quotation Number: ZNQ:
425/19-20
Item Category: Goods 
Item Description: Electric breast pump.


Quantity (if supplies) 01

COMPULSORY BRIEFING SESSION / SITE VISIT

Select Type: Select... 
Date : 
Time: 
Venue:

QUOTES CAN BE COLLECTED FROM: Edendale Hospital SCM

QUOTES SHOULD BE DELIVERED TO: Edendale Hospital Blue Tender Box at the security Main Gate

ENQUIRIES REGARDING THE ADVERT MAY BE DIRECTED TO:

Name: Cindy Chonco
Email: choncocindy@kznhealth.gov.za
Contact Number: 033 395 4570
Finance Manager Name: Mr Den Thangalan

Finance Manager Signature: 

No late quotes will be considered

 Submit |  Save |  Save As... |  Close |  Print Preview

Print this page

Note:

1. The completed Quotation Advert must be printed and signed by the Finance manager.
2. A signed copy of the Quotation Advert must be scanned and emailed to web administration: webmaster@kznhealth.gov.za for uploading to the department website.
3. N.B if the scanned copy emailed to web Administration is not a signed copy (by the finance manager), the advert/award WILL NOT be uploaded.

Site Updated: 01 August, 2019, 08:35 am

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Contact the Web Administrator

DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to quote (includes a price quotation, advertised competitive quote, limited quote or proposal). In view of possible allegations of favouritism, should the resulting quote, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- the bidder is employed by the state; and/or
- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the quote(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the quote.

2. In order to give effect to the above, the following questionnaire must be completed and submitted with the quote.

- 2.1. Full Name of bidder/representative..... 2.4. Company Registration Number:
 2.2. Identity Number: 2.5. Tax Reference Number:
 2.3. Position occupied in the Company (director, trustee, shareholder²): 2.6. VAT Registration Number:

- 2.7. The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below. [TICK APPLICABLE]

- 2.8. Are you or any person connected with the bidder presently employed by the state? YES ☐ NO ☐

- 2.8.1. If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member:

Name of state institution at which you or the person connected to the bidder is employed:

Position occupied in the state institution: Any other particulars:

- 2.8.2. If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? YES ☐ NO ☐

- 2.8.2.1. If yes, did you attach proof of such authority to the quote document?

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the quote.)

- 2.8.2.2. If no, furnish reasons for non-submission of such proof:

- 2.9. Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months? YES ☐ NO ☐

- 2.9.1. If so, furnish particulars:

- 2.10. Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this quote? YES ☐ NO ☐

- 2.10.1. If so, furnish particulars:

- 2.11. Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this quote? YES ☐ NO ☐

- 2.11.1. If so, furnish particulars:

- 2.12. Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract? YES ☐ NO ☐

- 2.12.1. If so, furnish particulars:

3. Full details of directors / trustees / members / shareholders.

NB: The Department Of Health will validate details of directors / trustees / members / shareholders on CSD. It is the suppliers' responsibility to ensure that their details are up-to-date and verified on CSD. If the Department cannot validate the information on CSD, the quote will not be considered and passed over as non-compliant according to National Treasury Instruction Note 4 (a) 2016/17.

4 DECLARATION

I, THE UNDERSIGNED (NAME)..... CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2.

I ACCEPT THAT THE STATE MAY REJECT THE QUOTE OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Name of bidder

.....
Signature

.....
Position

.....
Date

"State" means –

- a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
 b) any municipality or municipal entity;

- c) provincial legislature;
 d) national Assembly or the national Council of provinces; or
 e) Parliament.

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

SPECIAL CONTRACT CONDITIONS OF QUOTATIONS

1. AMENDMENT OF CONTRACT

- 1.1. Any amendment to or renunciation of the provisions of the contract shall at all times be done in writing and shall be signed by both parties.

2. CHANGE OF ADDRESS

- 2.1. Bidders must advise the Department of Health (institution where the offer was submitted) should their address (*domicilium citandi et executandi*) details change from the time of bidding to the expiry of the contract.

3. GENERAL CONDITIONS ATTACHED TO THIS QUOTATION

- 3.1. The institution is under no obligation to accept the lowest or any quote.
- 3.2. The price quoted must include VAT (if VAT vendor). However, it must be noted that the department reserves the right to evaluate all quotations excluding VAT as some bidders may not be VAT vendors.
- 3.3. The bidder must ensure the correctness & validity of quote:
- (i) *that the price(s), rate(s) & preference quoted cover all for the work/item (s) & accept that any mistakes regarding the price (s) & calculations will be at the bidder's risk*
- 3.4. The bidder must accept full responsibility for the proper execution & fulfilment of all obligations conditions devolving on under this agreement, as the Principal (s) liable for the due fulfilment of this contract.
- 3.5. This quotation will be evaluated based on the 80/20 points system, specification & correctness of information. All required documentation must be completed in full and submitted.
- 3.6. Offers must comply strictly with the specification.
- 3.7. Only offers that meet or are greater than the specification will be considered.
- 3.8. Late quotes will not be considered.
- 3.9. Expired product/s will not be accepted. All products supplied must be valid for a minimum period of six months.
- 3.10. A bidder not registered on the Central Suppliers Database or verification has failed will not be considered.
- 3.11. All delivery costs must be included in the quote price, for delivery at the prescribed destination.
- 3.12. Only firm prices will be accepted. Such prices must remain firm for the contract period. Non-firm prices (including rates of exchange variations) will not be considered.
- 3.13. In cases where different delivery points influence the pricing, a separate pricing schedule must be submitted for each delivery point.
- 3.14. In the event of a bidder having multiple quotes, only the cheapest according to specification will be considered. Furthermore a verification will be done to identify if bidders have multiple companies and are quoting (cover-quoting) for this bid. In such instances only the cheapest bid according to specification will be considered.

4. SAMPLES

- 4.1. In the case of the quote document stipulating that samples are required, the supplier will be informed in due course when samples should be provided to the institution. (This decreases the time of safety and storage risk that may be incurred by the respective institution). The bidders sample will be retained if such bidder wins the contract.
- (i) If a company/s who has not won the quote requires their samples, they must advise the institution in writing of such.
- (ii) If samples are not collected within three months of close of quote the institution reserves the right to dispose of them at their discretion.
- 4.2. **Samples must be made available when requested in writing or if stipulated on the document.**
- (i) If a Bidder fails to provide a sample of their product on offer for scrutiny against the set specification when requested, their offer will be rejected. All testing will be for the account of the bidder.

5. COMPULSORY SITE INSPECTION / BRIEFING SESSION

- 5.1. Bidders who fail to attend the compulsory meeting will be disqualified from the evaluation process.

(i) The institution has determined that a compulsory site meeting ☒ yes take place

(ii) Date ____/____/____ Time ____:____ Place _____

Institution Stamp:	Institution Site Inspection / briefing session Official Full Name: Signature: Date:
--------------------	--

6. STATEMENT OF SUPPLIES AND SERVICES

- 6.1. The contractor shall, when requested to do so, furnish particulars of supplies delivered or services executed. If he/she fails to do so, the Department may, without prejudice to any other rights which it may have, institute inquiries at the expense of the contractor to obtain the required particulars.

7. SUBMISSION AND COMPLETION OF SBD 6.1

- 7.1. Should a bidder wish to qualify for preference points they must complete a SBD 6.1 document. Failure by a bidder to provide all relevant information required, will result in such a bidder not being considered for preference point's allocation. The preferences applicable on the closing date will be utilized. Any changes after the closing date will not be considered for that particular quote.

8. TAX COMPLIANCE REQUIREMENTS

- 8.1. In the event that the tax compliance status has failed on CSD, ***it is the suppliers' responsibility to provide a SARS pin in order for the institution to validate the tax compliance status of the supplier.***
- 8.2. In the event that the institution cannot validate the suppliers' tax clearance on SARS as well as the Central Suppliers Database, ***the quote will not be considered and passed over as non-compliant according to National Treasury Instruction Note 4 (a) 2016/17.***

9. TAX INVOICE

- 9.1. A tax invoice shall be in the currency of the Republic of South Africa and shall contain the following particulars:

- (i) the name, address and registration number of the supplier;
- (ii) the name and address of the recipient;
- (iii) an individual serialized number and the date upon which the tax invoice is issued;
- (iv) a description and quantity or volume of the goods or services supplied;
- (v) the official department order number issued to the supplier;
- (vi) the value of the supply, the amount of tax charged;
- (vii) the words tax invoice in a prominent place.

10. PATENT RIGHTS

- 10.1. The supplier shall indemnify the **KZN Department of Health** (hereafter known as the purchaser) against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

11. PENALTIES

- 11.1. If the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract.

12. TERMINATION FOR DEFAULT

- 12.1. The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (i) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract,
 - (ii) if the supplier fails to perform any other obligation(s) under the contract; or
 - (iii) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 12.2. In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services.
- 12.3. Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

FAILURE TO COMPLY WITH ABOVE WILL RESULT IN YOUR QUOTE BEING PASSED OVER.

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all quotes invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all quotes:
- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- 1.2 The value of this quote is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable.
- 1.3 Points for this quote shall be awarded for:
- (a) Price; and
 - (b) B-BBEE Status Level of Contributor.
- 1.4 The maximum points for this quote is allocated as follows:

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the quote, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a quote is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) "B-BBEE" means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) "B-BBEE status level of contributor" means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) "bid" means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) "Broad-Based Black Economic Empowerment Act" means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) "EME" means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) "functionality" means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) "prices" includes all applicable taxes less all unconditional discounts;
- (h) "proof of B-BBEE status level of contributor" means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) "QSE" means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

$$Ps = 80 \left(1 - \frac{Pt - P_{\min}}{P_{\min}} \right) \text{ Where}$$

Ps = Points scored for price of bid under consideration
 Pt = Price of bid under consideration
 Pmin = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (80/20 system)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

5. BID DECLARATION

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

6.1 B-BBEE Status Level of Contributor: =(maximum of 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

(Tick applicable box)

7.1 Will any portion of the contract be sub-contracted?

YES		NO	
-----	--	----	--

7.1.1 If yes, indicate:

- What percentage of the contract will be subcontracted.....%
- The name of the sub-contractor.....
- The B-BBEE status level of the sub-contractor.....

8. Whether the sub-contractor is an EME or QSE

(Tick applicable box)

- Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

YES		NO	
-----	--	----	--

Designated Group: An EME or QSE which is at least 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

9. **DECLARATION WITH REGARD TO COMPANY/FIRM**

9.1 Name of company/firm:.....

9.2 VAT registration number:.....

9.3 Company registration number:.....

9.4 TYPE OF COMPANY/ FIRM [TICK APPLICABLE BOX]

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

9.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....
.....

9.6 COMPANY CLASSIFICATION [TICK APPLICABLE BOX]

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional service provider
- ☐ Other service providers, e.g. transporter, etc.

9.7 Total number of years the company/firm has been in business:.....

9.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....
SIGNATURE(S) OF BIDDERS(S)

DATE:

ADDRESS.....

.....
.....



health

Department:
Health
PROVINCE OF KWAZULU-NATAL

No 89 Selby Msimang Road, Pietermaritzburg, 3216
Postal Address: P/Bag x 509, PLESSISLAER, 3216
Tel: 033 395 4993 Email: rene.burns@kznhealth.gov.za
www.kznhealth.gov.za

DIRECTORATE:

EDENDALE HOSPITAL

Patient's Name: B/O Thobile Madlala (190320)

26/03/19

Re: Speech Therapy Findings and Recommendations

The above mentioned child was referred to the Speech Therapy department, as an in-patient, due to increased concern regarding her feeding and swallowing skills. The child currently presents with a cleft lip and palate and the repair with Greys plastics department is still to be scheduled (approximate waiting times is 4 months).

Clinical presentation:

Mum reports to have trialed breast feeding with the child however the child was reportedly struggling to suck. As such cup feeding has reportedly been used as a primary feeding method (breastmilk used here). With cup feeds an increased weight gain has been noted and no temperature spikes were noted in the child's medical file (please see dieticians notes for further analysis regarding the child's nutritional status here).

The child's non-nutritive sucking was assessed and was characterized with infrequent sucking trials (approximately three intermittent sucking bursts: 1 swallow). Reduced sucking strength, rhythm and co-ordination, was also noted. This is possibly suspected secondary to lack of breast feeding stimulation being used.

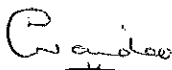
Breastfeeding and cup feeding were observed during a bedside swallow assessment in the ward (25/03/19). For both feeding methods, the child noticeably presented with oral preparatory and oral phase difficulties respectively, as suspected secondary to the cleft lip and palate. She further presented with reduced bolus control and propulsion, as suspected secondary to the cleft palate (which may result in the reduced intra-oral pressure required for sucking). No swallowing difficulties are currently suspected.

Recommendation(s):

- 1) To use cup feeding as the primary nutrition source (please dietician's plan here for further indications regarding feeding needs).
- 2) To trial breast feeding using lip taping to assist with facilitating improved breast feeding and cup feeding.

- 3) To trial specialized bottle feeding with the child in an effort to maintain adequate nutrition and safe feeding practices.

Kind regards



L. Naidoo

Speech Therapist

Edendale Hospital

033 395 4598

continuous feeding evaluation and support. Most are unable to gain weight or maintain hydration with only direct breastfeeding. Mothers will need continued support to maintain their breastmilk supply. Certain strategies can be implemented to maximize the child's capabilities to breastfeed, with the understanding that healthcare providers must frequently monitor growth, reevaluate feeding capability, and adjust feeding plans accordingly.

Cleft Lip and Palate

Cleft lip and palate are congenital malformations caused by incomplete fusion of the structures of the oral cavity and the palatine plates very early in gestation. This results in alteration in structure of the upper lip, maxilla, alveolar ridge, nose, and hard and soft palates. The clefting may involve only the lip, may extend into the hard and soft palates, and may be unilateral or bilateral. The general classifications include the following: lip only (CL); both the lip and the palate (CLP); and hard and/or soft palate only (CP). Cleft lip and cleft palate each account for 25% of the malformations; clefting of both structures is found in 50% of all cases. Approximately 15% to 76% of children with CL/CP have associated syndromes, depending on the anomaly definition. Across the literature, children with CP only are more likely to have associated anomalies compared to children with other types of clefting (Peterson-Falzone, 2011). Occasionally, small, isolated clefts of the soft palate are not identified until feeding difficulty becomes apparent. The lactation consultant may be the first to identify a problem during a feeding assessment.

One might think that children with CL would be at higher risk for parent–infant attachment disorders because of their unattractive appearance. However, Coy et al. (2002) found that this was not the case. In a sample of families whose babies had CLP, CP, and no clefts, it was found that the CL-affected babies demonstrated more secure attachment than those with CP or no cleft. The authors hypothesized that the perceived vulnerabilities of the children elicited extraordinary protectiveness and responsiveness in their mothers.

For the infant with CL/CP, a variety of preoperative orthopedic devices are used by some surgeons to help align the maxillary alveolar segments, decrease the width of the alveolar cleft, and improve cleft lip repair. These orthopedic interventions may be as low tech as the use of adhesive tape or steri-strips to approximate the lip segments, or they may involve splints or plates made of acrylic or soft dental material. Opinions vary as to the benefits of these devices. One recent meta-analysis did not indicate any long-lasting benefit from this approach (Uzel & Alparslan, 2011). However, use of the maxillary plates and other devices may improve long-term surgical outcomes, according to other sources (Choi & Lee, 2012; Hak et al., 2012; Shetye, 2012). Fabrication and fitting of these devices is labor intensive, is expensive, and requires professionals with very specialized expertise. Moreover, these devices are not universally available and, in particular, are less available in resource-poor countries.

Timing and approach to the surgical repair of cleft lip and palate partly reflect the preference of the surgeon or center, but the process normally takes place in stages. Typically lip closure is done at about 3 months of age, and palate repair at about 12 months. If the child has a complete cleft lip, a two-stage approach to lip closure may be done, with partial closure followed by conversion of the complete cleft lip to an incomplete deformity. Two authors (Denk, 1998; Hodges, 2010) have reported success in doing simultaneous repair of CL/CP in much younger infants, including neonates. Denk's group now has information on 241 infants and reports a 6% rate of complications among 241 children having definitive CLP repair in the first month of life (Sandberg et al., 2002). This approach is quite uncommon, in part due to the length of operative and anesthesia time, and the technical difficulties encountered with efforts to manipulate inside a small oral cavity.

Multiple prospective studies and case reports find that return to direct breastfeeding or bottle-feeding, rather than cup- or dropper-feeding, immediately following cleft lip repair is best for the baby (Cohen, 1997; Darzi et al., 1996). Furthermore, the former approach is more cost-effective,

as hospitalization time is shorter and the need for intravenous fluids is reduced (Darzi et al., 1996). Babies having CP repair in the series reported by Sandberg et al. (2002) also went directly to breast-feeding or bottle-feeding without complications. However, most surgeons prefer to avoid having a teat inside the oral cavity following cleft palate repair. Ideally, babies will have been weaned from bottle- to cup-feeding prior to their palate surgery. There are very limited data regarding direct breast-feeding immediately following cleft repair.

Young et al. (2001) queried parents of 40 children with CL/CP, and as one would predict, found that they wanted basic information in the immediate newborn period, especially about feeding. Only half of the families recalled having specific feeding instruction, while 97% felt it was critical not only to be informed but also to be shown how to feed their babies and which difficulties to expect. Kuttenger et al. (2010) interviewed 105 parents of children with CL/CP about their experience; they specifically wanted information about their child's surgery (80%) and feeding (63%). Feeding challenges are foremost on parents' minds and must be addressed very clearly.

Breastfeeding Implications

Breastmilk is particularly important for infants with CLP and Pierre Robin sequence as it reduces the risk of otitis media even beyond the time of weaning (Aniansson et al., 2002; Paradise et al., 1994). Newborns with clefts are interested in breastfeeding, approach the breast eagerly, and in many instances appear to latch on well. Their jaw movements appear effective, but usually swallows are very infrequent, particularly for the baby with cleft palate. Their sucking patterns are inefficient, explaining the high rate of failure to thrive observed in children with cleft palate (Pandya & Boorman, 2001). Masarei et al. (2007) and Reid et al. (2007) report that babies with CLP suck very differently than infants without CLP, based on bottle-feeding observations. Specifically, infants with CLP generate positive rather than negative pressure, "chomping" on the teat, and have more sucks per swallow.

The ease with which the baby takes the breast is related to the severity and extent of the defect. The child who has an isolated CL can usually breastfeed effectively with minimal intervention. Such a baby may, however, require some assistance from the mother in maintaining lip seal (Reid et al., 2007). Positioning the infant with the cleft as tightly to the breast as possible and placing the mother's thumb or index finger over the cleft can create sufficient closure for the infant to effectively milk the breast. According to Danner (1992, p. 625), the baby may do best if the breast enters the mouth from the side on which the defect is located: "An infant with a right-sided defect should be held so that the right cheek touches the breast . . . the mother can go from cradle-hold on one side, to the football or 'clutch' hold on the other."

CP causes more feeding challenges. In such a case, it is very unlikely that the child will ever achieve normal growth with exclusive breastfeeding. The opening in the palate dramatically alters suckling mechanics. Because the baby is unable to generate negative intraoral pressure, it is difficult to maintain breast tissue inside the oral cavity and impossible to generate the negative pressure that is a necessary part of milk transfer. As Wilson-Clay (1995) explained, "Try sucking on a straw with a hole in it." A review of pamphlets for parents and materials for health professionals noted that the information was unrealistically optimistic regarding the cleft-affected child's ability to thrive with exclusive breastfeeding (Miller, 1998). Miller interviewed several well-known clinicians and surveyed CLP centers in Canada and the United States. All respondents reported that their clinical experience revealed that it was exceedingly rare for the child with CP to accomplish normal weight gain with exclusive breastfeeding. Pandya and Boorman (2001) found that 32% of children with unilateral CL, 38% with bilateral CL, and 49% with CLP had failure to thrive in a retrospective review. Details of infant feeding methods were not described for this cohort. Babies with CLP who are not supplemented rarely grow well (Montagnoli et al., 2005). Oral feeding can be uncomfortable for the child due to regurgitation of the milk into the nostrils. Such

regurgitation is minimized with upright positioning during feeding and with quick milk flow into the back of the oral cavity, where it can be swallowed rapidly (Reilly et al., 2007). A baby with a bilateral cleft suckles best when straddled on the mother's lap or sitting on one side of her body with his legs under her arm (see again Figure 18-1). The soft breast fills the alveolar-ridge defect as well as the palate defect and can be moved to one side or the other as needed. The author of this chapter has observed videos of babies at the breast who are drinking milk that the mother has hand-expressed into the baby's mouth. The baby is not at all an active participant in the milk transfer, but rather a passive recipient of expressed milk.

The use of a palatal obturator or maxillary plate is recommended by some cleft palate teams both to facilitate development of the oral cavity and to achieve suckling effectiveness. The dentist or plastic surgeon makes this appliance, which covers the cleft in the palate and may improve the infant's ability to suckle. An impression has to be made of the oral cavity to fabricate the device. The device then must be adjusted to accommodate the infant's growth, requiring repeated impressions. Anesthesia may be required to safely make the impression in the older baby—an issue that raises concerns about the effect of repeated anesthesia exposure on the infant's development. Several groups have reported

on outcomes of babies who had obturators or palatal plates that cover the cleft palate defect, with conflicting results being noted. Turner et al. (2001) report on eight infants who participated in a prospective feeding intervention study using a palatal obturator and Haberman feeders (see Figure 18-5). None of the babies in their cohort were able to achieve sustained effective breastfeeding with any of the interventions. The use of the palatal obturator and Haberman feeder allowed the children to drink larger volumes in less time and to achieve normal growth. Lactation support for the mothers facilitated continued milk expression, among a highly motivated group. A Cochrane review (Bessell et al., 2011) found no evidence that maxillary plates helped growth in cleft-affected infants. Watson Genna (2008) and Miller (2011) provide suggestions for optimizing feeding for children with craniofacial syndromes, including CL/CP (see Table 18-2).

While the parents and healthcare team are working to maximize the infant's capacity for breastfeeding, milk expression is critical to maintaining the mother's milk supply. The infant can be fed breastmilk by alternative methods. Some parents find that a small spouted cup works well. Others favor an eyedropper, a rubber-tipped syringe (Brecht feeder), or a pipette. Feeding-tube devices have been used successfully for the occasional

Table 18-2 FEEDING STRATEGIES FOR INFANTS WITH CLEFT PALATE

Positioning	Flexion, with neutral alignment of head and neck. Upright positioning to reduce nasopharyngeal reflux (see Figure 18-1).
Support of lip, chin, and cheeks	Use the dancer-hand positioning (see Figure 18-2) to support sucking movements.
Feeding	Breast compression, or squeezing of flexible infant feeder such as the Cleft Palate Feeder or Haberman Feeder (see Figure 18-5) in synchrony with child's sucking effort. Helps compensate for baby's inability to generate negative pressure.
Pacing	Impose pauses to allow child a rest for breathing, to help protect the airway.
Thickening feeds	Creates a bolus that moves more slowly, protecting the airway.

Note: Recent concerns have emerged regarding contamination of some commercially available thickeners.
Data from Miller, 2012; Watson Genna, 2008.

infant with cleft palates. Most children will do best with a flexible infant feeding bottle such as the Mead-Johnson cleft palate or Haberman feeders (Figure 18-5). Shaw et al. (1999) found that a squeezable bottle was more effective and better accepted than a rigid feeding bottle for providing supplement. As with any child having suckling difficulty, bottle-feeding is no guarantee of appropriate weight gain for the same reasons that breastfeeding is so difficult.

All babies with CLP must have expert breastfeeding assistance, a written feeding plan, a support phone number, and a follow-up outpatient appointment within 24 to 48 hours of dismissal from the newborn nursery. Continued frequent monitoring is a must. Some babies will benefit from calorie-enriched feedings. Box 18-5 discusses a typical case of a family whose 5-day-old baby with a CLP was extremely distressed.

Pierre Robin Sequence

Pierre Robin sequence is a complex of oral-facial abnormalities including micrognathia (small jaw) and glossoptosis (tongue with retropharyngeal placement). Micrognathia is the hallmark feature of Pierre Robin sequence. Most affected children also have clefts of the palate. As many as 80% have other associated anomalies.

Diagnosis is usually made very shortly after birth, when the child's respiratory distress is noted. The position of the tongue interferes with patency of the upper airway. Duskiness and apnea occur with feeding or supine positioning. The facial anatomy, particularly the placement of the tongue, leads to difficulties with airway obstruction and feeding, with or without presence of a cleft palate. The feeding problems, primarily caused by difficulties in maintaining the airway (Marcellus, 2001),

BOX 18-5 CASE STUDY—AN UNHAPPY BABY (AND FAMILY) WITH CLEFT LIP AND PALATE

History

Baby Anna and her parents came to the breastfeeding clinic on the child's fifth day of life. Her primary care physician referred them for assistance with breastfeeding. Anna was the couple's first child. Pregnancy, labor, and delivery were uneventful and she was healthy except for the unilateral CLP, which was unexpected. Birth weight was 3650 grams; dismissal weight was not known.

The family reported that during the newborn stay, the baby was nursed every 3 hours. They thought that nurses in the nursery might be supplementing the baby, but were not specifically told this. Dismissal instructions were to breastfeed on demand.

At 5 days of age, they reported that she was inconsolable, at the breast continuously, and had orange stuff in her diaper. They had been to the doctor's office, where her bilirubin was 17 mg/dl.

Observation

The baby was jaundiced down to her shins, crying, and slim. Her mucous membranes were moist, and her skin turgor was good. She had a wide, unilateral cleft lip and palate.

Her weight was 3190 grams—12% below birth weight. Breastfeeding was observed. In cradle hold, the baby eagerly rooted, but never latched onto the breast. She was placed in the upright position (see Figure 18-1) and latched onto the breast. Rhythmic jaw movements were noted. She did not demonstrate swallowing until the mother had let down, and then she lapped a little milk off the surface of the breast. No sustained suck-swallows were noted during 10 to 15 minutes of attempted breastfeeding. A tube at breast was attempted without success. Held in an upright position to avoid

(continue)