

2. Menon PR, Lodha R, Kabra SK. Bovine colostrum in pediatric respiratory diseases: a systematic review. *Indian J Pediatr* 2009 (in press).
3. Patel K, Rana R. Pedimune in recurrent respiratory infection and diarrhoea--the Indian experience--the PRIDE study. *Indian J Pediatr* 2006; 73: 585-591.
4. Abubakar I, Aliyu SH, Arumugam C, Usman NK, Hunter PR. Treatment of cryptosporidiosis in immunocompromised individuals: systematic review and meta-analysis. *Br J Clin Pharmacol* 2007; 63: 387-393.
5. Malin M, Verronen P, Korhonen H, Syväoja EL, Salminen S, Mykkänen H, *et al.* Dietary therapy with *Lactobacillus GG*, bovine colostrum or bovine immune colostrum in patients with juvenile chronic arthritis: Evaluation of effect on gut defense mechanisms. *Inflammopharmacology* 1997; 5: 219-236.
6. Ashraf H, Mahalanabis D, Mitra AK, Tzipori S, Fuchs GJ. Hyperimmune bovine colostrum in the treatment of shigellosis in children: a double-blind, randomized, controlled trial. *Acta Paediatr* 2001; 90: 1373-1378.
7. Kruse PE. The importance of colostrum immunoglobulins and their absorption from the intestine of the newborn animals. *Ann Rech Vet* 1983; 14: 349-353.

## RUTF: Imported or Indigenous

I read with interest the research paper on comparison of RUTF with cereal legume based *Khichri* among malnourished children(1), and the accompanying editorial(2).

The energy intake in the age group 12 to 36 months ( $n=23$ ) was 316 Kcal from RUTF as against 290 Kcal from '*Khichri*', the difference being only 26 Kcal. Appropriate behaviour change counselling and supplementation can easily make up this gap. In the age group 6 to 11 mo ( $n=8$ ), the difference is 85 Kcal. Most probably, these infants had not been introduced to homemade/ complementary food yet and were on liquid supplementations mainly, which in fact had precipitated malnutrition as a result of energy gap and recurrent infections.

'Nutrimix' (Child In Need Institute) and other traditional home made energy dense food can fulfil most of the requisite criteria of 'RUTF' by adding 'mineral electrolyte solution' (WHO) and vitamins supplements. Also, indigenously prepared 'RUTF' should be preferred for home/community based management of severe acute malnutrition for the following reasons: (a) It is a traditional home made food, is energy dense and could be made more energy dense and palatable by adding more oil, sugar

and seasonal ripe fruits like banana, mango and others; (b) This can be fed to other children at home thereby preventing malnutrition occurring in them and at the same time bring in positive behavior change in feeding (exclusive breastfeeding and appropriate complementary feeding as per IYCF norms) and caring (practising hygiene, sanitation and immunization); (c) The process also encourages accountability, ownership, participation and sustainability by decreasing dependency in the external agency.

As rightly pointed out by Dr Umesh Kapil in the editorial(2), we need to evaluate the imported 'RUTF' by carefully planned multicentric efficacy, effectiveness and safety trials and must take precautions so that commercial exploitation of malnutrition is avoided.

**N C De**

*Child In Need Institute (CINI)  
Daulatpur, P O Pailan, 24 Pargana (South),  
West Bengal 700 104, India.  
nimaide@satyam.net.in*

### REFERENCES

1. Dube B, Rongsen T, Mazumder S, Taneja S, Rafiqi F, Bhandari N, *et al.* Composition of ready-to-use therapeutic food with cereal legume-based khichri among malnourished children. *Indian Pediatr* 2009; 46: 383-388.
2. Kapil U. Ready to use therapeutic food (RUTF) in the management of severe acute malnutrition in India. *Indian Pediatr* 2009; 46: 381-382.