Aim To assess the psychometric properties of the Dutch_ASQ-60.
Material and Methods Parents of 426 term-born and 1111 preterm-born children from the prospective cohort study Lollipop filled in the Dutch_ASQ-60 and a general questionnaire on educational problems, when the children were 57–63 months old. Dutch cut-off values, reliability and validity (content, construct and concurrent) of the Dutch_ASQ-60 were determined for both the original ASQ score (at least 1 abnormal ASQ Domain-score) and the ASQ-Total score. Furthermore mean domain scores of the Dutch_ASQ-60 were compared with versions in other languages.
Results There were no problems with content validity in an expert meeting. Cronbach's alpha, as measure for reliability was 0.86 for the ASQ-total score. Male gender, prematurity, low paternal education, low family income and small-for-gestational-age (SGA) were associated with abnormal ASQ scores, confirming construct validity. Concurrent validity at age 5 for special educational needs was good for both the original ASQ score (sensitivity 80% and specificity 78%) and the ASQ-Total score (sensitivity 65% and specificity 94%). Area under the curve (AUC) for the ASQ-Total score was 0.86. Mean ASQ-scores for the Dutch_ASQ-60 differed only slightly from other countries: Cohen's delta was above 0.5 for 3 out of 15 comparisons.
Conclusion The Dutch_ASQ-60 has good psychometric properties to screen for developmental problems at age 5 years.

1768 NUCLEAR TRANSIT SCINTIGRAPHY (NTS) PROVIDES OBJECTIVE ASSESSMENT OF GASTROINTESTINAL TRANSIT IN CHILDREN WITH SLOW-TRANSIT CONSTIPATION (STC)

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[1,2,3]YI Yik, [4]DJ Cook, [4]DM Veysey, [4]CF Tudball, [4]BS King, [4]KA Morris, [4]TM Cain, [2,3,5]JM Hutson, [3]BR Southwell. *[1]Department of General Surgery, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia; [2]Department of Paediatrics, University of Melbourne; [3]Gut Motility and Research Laboratory, Murdoch Children's Research Institute; [4]Department of Biomedical Imaging; [5]Department of Urology, Royal Childrens Hospital Melbourne, Melbourne, VIC, Australia*

Background /aims: Children with slow-transit constipation (STC) are resistant to medical treatment. We used a new treatment - transcutaneous electrical stimulation (TES) to treat STC children since 2005, with improved symptoms in most children. Home-based TES was available in 2008. We aimed to assess gastrointestinal transit (GIT) in STC children after medical treatment and home-based TES, with nuclear transit scintigraphy (NTS) as an objective assessment. We hypothesized that TES may alter gastrointestinal transit but not medical treatment in STC children.
Methods All STC children were diagnosed by NTS. STC children treated medically ("Control", n=29 - from NTS database) were compared with 45 STC children treated with home-based TES (1-hour dailyx6 months from 2009–2011). Gastrointestinal transit measured gastric emptying (t½) and colonic transit by geometric centre (GC) at 6, 24, 30 & 48 hours. The effects of treatments were measured by a repeat NTS. Pre- and post-treatment NTS data were analysed with paired t-test; $p<0.05$ considered significant. Symptoms assessments were based on bowel diary recorded. Ethics approval obtained (HREC30059A&30116A).
Results Control group has no improvement in symptoms with most STC children treated with home-based TES has improved symptoms. GC and GIT significantly improved in STC children treated with home-based TES (Table 1).
Conclusions We found symptoms and gastrointestinal transit improved in STC children with home-based TES but not with medical treatment. NTS provides objective assessment, which is important to confirm clinical status after treatments and helps to decide on further interventions.

1769 HOME-BASED TRANSCUTANEOUS ELECTRICAL STIMULATION (TES) TO TREAT CHILDREN WITH SLOW-TRANSIT CONSTIPATION (STC): SAFE (SATISFACTION, FEASIBILITY & EFFICACY) STUDY

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[1,2,3]YI Yik, [2,3,4]JM Hutson, [3]BR Southwell. *[1]Department of General Surgery, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia; [2]Department of Paediatrics, University of Melbourne; [3]Gut Motility and Research Laboratory, Murdoch Children's Research Institute; [4]Department of Urology, Royal Childrens Hospital Melbourne, Melbourne, VIC, Australia*

Background /aims: Home-based transcutaneous electrical stimulation (TES) is a novel therapy for children with slow-transit constipation (STC). TES has evolved from a clinic-based to home-based therapy. We aimed to assess the end-users' responses and views to TES.
Methods TES was self-administered via adhesive electrodes on the abdomen and back (quadripolar stimulation), 60 mins/day for 6 months. Forty STC children/families were assessed by questionnaires (Ethics 30116A) for: rating of the treatment; time consumption; daily routine disruption; feasibility of delivery; symptom improvement, laxatives used; willingness to recommend TES to others and their views on the current device.
Results Thirty-six/40 STC children/families responded (20 males, ages: 3–18 yrs, mean:9 yrs). Symptom improvement developed in 69% (17% in < 3 months, 33% 3–6 months and 19% >6 months). Forty-seven percent of children reduced laxative use with 19% unchanged and 33% unsure about the effect. Seventy-five percent rated the treatment good, while 17% were unsure about this new treatment. Ninety-seven percent would recommend TES to other children with chronic constipation and 67% would purchase a machine for booster treatment if required. All families found the instructions of home TES clear and useful. Problems with use included pad adhesiveness (61%), wire connections (11%) or both (11%). All felt home TES was safe and most had minor disruptions to family routines (parents 6% vs child 28%).
Conclusions This study confirms that home-based TES was safe and well accepted by STC children/families with symptom improvement in 2/3 of these children. There were difficulties with existing device that may be overcome by training.

Abstract 1768 Table 1

Parameters	Control (Medical; n=29, 15 female; age 3–17yrs; mean 8.7yrs)			Home-based TES (n=45, 22 female; age 3–16yrs; mean 7.6yrs)		
	Pre (mean±SD)	Post (mean±SD)	p-value	Pre (mean±SD)	Post (mean±SD)	p-value
t 1/2 (mins)	45±26	49±19	0.38	42±18	36±16	0.06
Geometric centre 6hr	1.8±0.3	1.8±0.3	0.55	1.9±0.3	1.9±0.3	0.40
Geometric centre 24hr	2.8±0.4	2.7±0.6	0.31	2.6±0.4	2.8±0.5	0.003
Geometric centre 30hr	3.2±0.7	3.1±0.6	0.36	2.9±0.6	3.1±0.5	0.039
Geometric centre 48hr	3.8±0.8	3.5±0.7	0.06	3.4±0.7	3.8±0.7	0.001
Gastrointestinal transit index	11.5±1.9	11.0±1.7	0.18	10.8±1.6	11.6±1.6	0.002

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