Gastro-oesophageal reflux disease: recognition, diagnosis and management in children and young people

NICE guideline

Draft for consultation, July 2014

If you wish to comment on this version of the guideline, please be aware that all the supporting information and evidence is contained in the full version.

Contents

Introduction

Gastro-oesophageal reflux (GOR) is a normal physiological process that usually happens after eating in healthy infants, children, young people and adults. In contrast, gastro-oesophageal reflux disease (GORD) occurs when the effect of GOR leads to symptoms severe enough to merit medical treatment. GOR is more common in infants than in older children and young people, and it is noticeable by the effortless regurgitation of feeds in young babies.

In clinical practice, it is difficult to differentiate between GOR and GORD, and the terms are used interchangeably by health professionals and families alike. There is no simple, reliable and accurate diagnostic test to confirm whether the condition is GOR or GORD, and this in turn affects research and clinical decisions. Furthermore, the term GORD covers a number of specific conditions that have different effects and present in different ways. This makes it difficult to identify the person who genuinely has GORD, and to estimate the real prevalence and burden of the problem. Nevertheless, regardless of the definition used, GORD affects many children and families in the UK, who commonly seek advice from primary, secondary or tertiary care. As a result, it constitutes a major health burden for the NHS.

Generally, experts agree that the groups of children most affected by GORD are otherwise healthy infants, children with identifiable risk factors, and pubescent young people who acquire the problem in the same way as adults. The two other specific populations of children affected by GORD are premature infants and children with complex, severe neurodisabilities. In the latter group, the diagnosis is complicated further by a tendency to confuse vomiting with or without gut dysmotility with severe GORD. In addition, for a child with neurodisabilities, a diagnosis of GORD often fails to recognise a number of distinct problems that may coexist and combine to produce a very complicated feeding problem in an individual with already very complex health needs. For example, a child with severe cerebral palsy may be dependent on enteral tube feeding, have severe chronic vomiting, be constipated, have marked kyphoscoliosis, possess a poor swallow mechanism and be unable to safely protect their airway resulting in a risk of regular aspiration pneumonia.

This guideline focuses on symptoms and interventions of GORD. Commonly observed events, such as infant regurgitation, are covered as well as much rarer but potentially more serious problems, such as apnoea. Where appropriate, clear recommendations are given as to when and how reassurance should be offered. The guideline also advises healthcare professionals about when to think about investigations, and what treatments to offer. Finally, it is emphasised that other, and on occasion more serious, conditions that need different management can be confused with some of the relatively common manifestations of GOR or GORD. These warning signs are defined under the headings of ‘red flags’ along with recommended initial actions.

Drug recommendations

The guideline will assume that prescribers will use a drug’s summary of product characteristics to inform decisions made with individual patients.

Patient-centred care

This guideline offers best practice advice on the care of infants, children and young people with gastro-oesophageal reflux disease (GORD).

Patients and healthcare professionals have rights and responsibilities as set out in the NHS Constitution for England – all NICE guidance is written to reflect these. Treatment and care should take into account individual needs and preferences. Patients should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. If the patient is under 16, their family or carers should also be given information and support to help the child or young person to make decisions about their treatment. Healthcare professionals should follow the Department of Health's advice on consent. If someone does not have capacity to make decisions, healthcare professionals should follow the code of practice that accompanies the Mental Capacity Act and the supplementary code of practice on deprivation of liberty safeguards.

If a young person is moving between paediatric and adult services, care should be planned and managed according to the best practice guidance described in the Department of Health's Transition: getting it right for young people.

Adult and paediatric healthcare teams should work jointly to provide assessment and services to young people with GORD. Diagnosis and management should be reviewed throughout the transition process, and there should be clarity about who is the lead clinician to ensure continuity of care.

Strength of recommendations

Some recommendations can be made with more certainty than others. The Guideline Development Group makes a recommendation based on the trade-off between the benefits and harms of an intervention, taking into account the quality of the underpinning evidence. For some interventions, the Guideline Development Group is confident that, given the information it has looked at, most patients would choose the intervention. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

For all recommendations, NICE expects that there is discussion with the patient about the risks and benefits of the interventions, and their values and preferences. This discussion aims to help them to reach a fully informed decision (see also 'Patient-centred care').

Interventions that must (or must not) be used

We usually use 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally we use 'must' (or 'must not') if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Interventions that should (or should not) be used – a 'strong' recommendation

We use 'offer' (and similar words such as 'refer' or 'advise') when we are confident that, for the vast majority of patients, an intervention will do more good than harm, and be cost effective. We use similar forms of words (for example, 'Do not offer…') when we are confident that an intervention will not be of benefit for most patients.

Interventions that could be used

We use 'consider' when we are confident that an intervention will do more good than harm for most patients, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the patient's values and preferences than for a strong

recommendation, and so the healthcare professional should spend more time considering and discussing the options with the patient.

Key priorities for implementation

The following recommendations have been identified as priorities for implementation. The full list of recommendations is in section 1.

- Give advice about gastro-oesophageal reflux (GOR) and reassure parents and carers that in well infants, effortless regurgitation of feeds:
  - is very common (it affects at least 40% of infants)
  - usually begins before the infant is 8 weeks old
  - may be frequent (5% of those affected have 6 or more episodes each day)
  - usually becomes less frequent with time (it resolves in 90% of affected infants before they are 1 year old)
  - does not usually need further investigation or treatment. **[1.1.3]**

- In infants, children and young people with vomiting or regurgitation, look out for the following 'red flags' in table 1, which may suggest disorders other than GOR. Investigate or refer using clinical judgement. **[1.1.5]**

- Do not routinely investigate or treat for GOR if an infant or child without overt regurgitation presents with only one of the following:
  - unexplained feeding difficulties (for example, refusing to feed, gagging or choking)
  - distressed behaviour
  - faltering growth
  - chronic cough
  - hoarseness
  - a single episode of pneumonia. **[1.1.6]**

- Do not offer an upper gastrointestinal (GI) contrast study to diagnose or assess the severity of gastrointestinal reflux disease (GORD) in infants, children and young people. **[1.1.14]**

- Refer infants, children and young people to a specialist for a possible upper GI endoscopy with biopsies if there is:
  - any haematemesis (blood-stained vomit)

  - any melaena (black, foul-smelling stool)
  - dysphagia
  - no improvement in regurgitation after 1 year old
  - persistent faltering growth associated with overt regurgitation
  - unexplained distress in children and young people with communication difficulties
  - retrosternal, epigastric or upper abdominal pain that needs ongoing medical therapy or is refractory to medical therapy
  - feeding aversion and a history of regurgitation
  - unexplained iron-deficiency anaemia
  - a referral for fundoplication
  - back arching or features of Sandifer's syndrome. **[1.1.19]**

- In formula-fed infants with frequent regurgitation associated with marked distress:
  - review the feeding history **and**
  - reduce the feed volumes only if excessive for the infant's weight, **then**
  - give a trial of either:
    - ◊ smaller, more frequent feeds (while maintaining an appropriate total daily amount of milk) **or**
    - ◊ thickened formula (for example, containing rice starch, cornstarch, locust bean gum or carob bean gum). **[1.2.2]**

- In formula-fed infants, if small, frequent feeds and thickening the formula are unsuccessful, try stopping the thickening agent and offer alginate therapy for a trial period of 1–2 weeks. If the alginate therapy is successful continue with it, but try stopping it at intervals to see if the infant has recovered. **[1.2.4]**

- Do not offer acid-suppressing drugs, such as proton pump inhibitors (PPIs) or H_2 receptor antagonists (H_2RAs), to treat overt regurgitation in infants and children occurring as an isolated symptom. **[1.3.1]**

- Do not offer metoclopramide, domperidone or erythromycin to treat GOR or GORD without seeking specialist advice and taking into account their potential to cause adverse events. **[1.3.8]**

1 Recommendations

The following guidance is based on the best available evidence. The full guideline [hyperlink to be added for final publication] gives details of the methods and the evidence used to develop the guidance.

Terms used in this guideline

Infants, children and young people

These terms are defined as follows:

- infants: under 1 year
- children: 1 to under 12 years
- young people: 12 to under 18 years.

Gastro-oesophageal reflux and gastro-oesophageal reflux disease

Gastro-oesophageal reflux (GOR) is the passage of gastric contents into the oesophagus. It is a common physiological event at all ages from infancy to old age, and is often asymptomatic. It occurs more frequently after feeds/meals. In many infants GOR is associated with a tendency to 'overt regurgitation' – the visible regurgitation of feeds.

Gastro-oesophageal reflux disease (GORD) refers to gastro-oesophageal reflux that causes symptoms (for example, discomfort or pain) severe enough to merit medical treatment, or to gastro-oesophageal reflux associated complications (such as oesophagitis or pulmonary aspiration). In adults the term GORD is often used more narrowly, referring specifically to reflux oesophagitis.

1.1 Diagnosing and investigating GORD

1.1.1 Recognise regurgitation of feeds as a common and normal occurrence in infants that:

- is due to gastro-oesophageal reflux (GOR) – a normal physiological process in infancy
- does not usually require any investigation or treatment
- is managed by advising and reassuring parents and carers.

1.1.2 Be aware that in a small proportion of infants, GOR may be associated with signs of distress or may lead to certain recognised complications that need clinical management. This is known as gastro-oesophageal reflux disease (GORD).

1.1.3 Give advice about GOR and reassure parents and carers that in well infants, effortless regurgitation of feeds:

- is very common (it affects at least 40% of infants)
- usually begins before the infant is 8 weeks old
- may be frequent (5% of those affected have 6 or more episodes each day)
- usually becomes less frequent with time (it resolves in 90% of affected infants before they are 1 year old)
- does not usually need further investigation or treatment.

1.1.4 When reassuring parents and carers about regurgitation, advise them that they should return for review if any of the following occur:

- the regurgitation becomes persistently projectile
- there is bile-stained (green or green-yellow) vomiting or haematemesis (blood in vomit)
- there are new concerns, such as signs of marked distress, feeding difficulties or faltering growth
- there is persistent, frequent regurgitation beyond the first year of life.

1.1.5 In infants, children and young people with vomiting or regurgitation, look out for the following 'red flags' in table 1, which may suggest disorders other than GOR. Investigate or refer using clinical judgement.

Table 1 'Red flag' symptoms suggesting disorders other than GOR

Symptoms and signs	Possible diagnostic implications	Suggested actions
Gastrointestinal		
Frequent, forceful (projectile) vomiting	May suggest hypertrophic pyloric stenosis in infants up to 2 months old	Paediatric surgery referral

Bile-stained (green or yellow-green) vomit	May suggest intestinal obstruction	Paediatric surgery referral
Haematemesis (blood in vomit)	Suggests upper gastrointestinal ulceration, including erosive oesophagitis	Specialist referral for investigation
Onset of regurgitation and/or vomiting after 6 months old or persisting after 1 year old	Late onset suggests a cause other than reflux, for example a urinary tract infection (also see Urinary tract infection in children [NICE clinical guideline 54]) Persistence suggests an alternative diagnosis	Urine microbiology investigation Specialist referral
Blood in stool	May suggest a variety of conditions, including bacterial gastroenteritis or an acute surgical condition	Stool microbiology investigation Specialist referral
Abdominal distension, tenderness or palpable mass	May suggest intestinal obstruction or another acute surgical condition	Paediatric surgery referral
Systemic		
Appearing unwell	May suggest infection (also see Feverish illness in children [NICE clinical guideline 160])	Clinical assessment and urine microbiology investigation Specialist referral
Fever	May suggest infection (also see Feverish illness in children [NICE clinical guideline 160])	Clinical assessment and urine microbiology investigation Specialist referral
Dysuria	May suggest urinary tract infection (also see Urinary tract infection in children [NICE clinical guideline 54])	Clinical assessment and urine microbiology investigation Specialist referral
Bulging fontanelle	May suggest raised intracranial pressure, for example due to meningitis (also see Bacterial meningitis and meningococcal septicaemia [NICE clinical guideline 102])	Specialist referral
Rapidly increasing head circumference (more than 1 cm per week)	May suggest raised intracranial pressure, for example due to hydrocephalus or a brain tumour	Specialist referral
Persistent morning	May suggest raised	Specialist referral

headache, and vomiting worse in the morning	intracranial pressure, for example due to hydrocephalus or a brain tumour	
Altered responsiveness, for example, lethargy or irritability	May suggest an illness such as meningitis (also see Bacterial meningitis and meningococcal septicaemia [NICE clinical guideline 102])	Specialist referral
Eczema	May suggest gastrointestinal cow's milk protein allergy (also see Food allergy in children and young people [NICE clinical guideline 116])	Trial of cow's milk exclusion Specialist referral

1.1.6 Do not routinely investigate or treat for GOR if an infant or child without overt regurgitation presents with only one of the following:

- unexplained feeding difficulties (for example, refusing to feed, gagging or choking)
- distressed behaviour
- faltering growth
- chronic cough
- hoarseness
- a single episode of pneumonia.

1.1.7 Think about referring infants and children with persistent back arching or features of Sandifer's syndrome (episodic torticollis with neck extension and rotation) for specialist assessment (and possible endoscopy and pH–impedance monitoring).

1.1.8 Recognise the following as possible complications of GOR in infants, children and young people:

- reflux oesophagitis
- recurrent aspiration pneumonia
- frequent otitis media (for example, more than 3 episodes in 6 months)

- dental erosion in a child or young person with a neurodisability, in particular cerebral palsy.

1.1.9 Recognise the following as possible symptoms of GOR in children and young people:

- heartburn
- retrosternal pain
- epigastric pain.

1.1.10 Be aware that GOR is more common in children and young people with asthma, but it has not been shown to cause or worsen it.

1.1.11 Take into account that the following are associated with an increased prevalence of GORD when deciding whether to investigate or treat:

- premature birth
- parental history of heartburn or acid regurgitation
- obesity
- hiatus hernia
- history of congenital diaphragmatic hernia (repaired)
- history of congenital oesophageal atresia (repaired)
- a neurodisability.

1.1.12 GOR only rarely causes episodes of apnoea or apparent life-threatening events (ALTEs), but think about referral for specialist investigations if it is suspected as a possible factor following a general paediatric assessment.

1.1.13 For children and young people who are obese and have heartburn or acid regurgitation, advise them and their parents or carers (as appropriate) that losing weight may improve their symptoms (also see Obesity [NICE clinical guideline 43]).

1.1.14 Do not offer an upper gastrointestinal (GI) contrast study to diagnose or assess the severity of GORD in infants, children and young people.

1.1.15 Offer an urgent (same day) upper GI contrast study for infants with unexplained bile-stained vomiting.

1.1.16 Think about an upper GI contrast study for children and young people with a history of bile-stained vomiting, particularly if it is persistent or recurrent.

1.1.17 Offer an upper GI contrast study for children and young people with a history of GORD presenting with dysphagia.

1.1.18 Urgently refer (on the same day) infants younger than 2 months with progressively worsening or forceful vomiting of feeds for investigation for possible hypertrophic pyloric stenosis.

1.1.19 Refer infants, children and young people to a specialist for a possible upper GI endoscopy with biopsies if there is:

- any haematemesis (blood-stained vomit)
- any melaena (black, foul-smelling stool)
- dysphagia
- no improvement in regurgitation after 1 year old
- persistent faltering growth associated with overt regurgitation
- unexplained distress in children and young people with communication difficulties
- retrosternal, epigastric or upper abdominal pain that needs ongoing medical therapy or is refractory to medical therapy
- feeding aversion and a history of regurgitation
- unexplained iron-deficiency anaemia
- a referral for fundoplication
- back arching or features of Sandifer's syndrome.

1.1.20 Think about performing a pH study, ideally with impedance monitoring, in children and young people with unexplained:

- recurrent aspiration pneumonia
- apnoea
- non-epileptic seizure-like events

- Sandifer's syndrome
- unexplained upper airway inflammation
- dental erosion in children and young people with a neurodisability
- frequent otitis media.

1.1.21 Think about performing a pH study without impedance monitoring:

- to ensure adequate acid suppression during treatment
- if symptoms continue during medical management
- if there is a clinical suspicion of GORD but no regurgitation
- when thinking about fundoplication.

1.1.22 Investigate the possibility of a urinary tract infection in infants with regurgitation if there is:

- faltering growth
- late onset (after the infant is 8 weeks old)
- frequent regurgitation and marked distress.

1.2 Initial management of GOR and GORD

1.2.1 Do not use positional management to treat GOR in sleeping infants. In line with Department of Health advice, infants should be placed on their back when sleeping.

1.2.2 In formula-fed infants with frequent regurgitation associated with marked distress:

- review the feeding history **and**
- reduce the feed volumes only if excessive for the infant's weight, **then**
- give a trial of either:
  - smaller, more frequent feeds (while maintaining an appropriate total daily amount of milk) **or**
  - thickened formula (for example, containing rice starch, cornstarch, locust bean gum or carob bean gum).

1.2.3 In breast-fed infants with frequent regurgitation associated with marked distress, consider alginate therapy for a trial period of 1–2 weeks. If the alginate therapy is successful continue with it, but try stopping it at intervals to see if the infant has recovered.

1.2.4 In formula-fed infants, if small, frequent feeds and thickening the formula are unsuccessful, try stopping the thickening agent and offer alginate therapy for a trial period of 1–2 weeks. If the alginate therapy is successful continue with it, but try stopping it at intervals to see if the infant has recovered.

1.3 Pharmacological treatment of GORD

1.3.1 Do not offer acid-suppressing drugs, such as proton pump inhibitors (PPIs) or H_2 receptor antagonists (H_2RAs), to treat overt regurgitation in infants and children occurring as an isolated symptom.

1.3.2 Consider a 4-week trial of an H_2RA or a PPI for infants, young children who are unable to verbally express their symptoms and those with a neurodisability and/or communication difficulties who have overt regurgitation with one or more of the following:

- unexplained feeding difficulties (for example, refusing feeds, gagging or choking)
- distressed behaviour
- faltering growth.

1.3.3 Consider a 4-week trial of a PPI for children and young people with persistent heartburn, retrosternal or epigastric pain.

1.3.4 Assess the response to PPI or H_2RA treatment at 4 weeks, and think about referral for specialist assessment and possible endoscopy if the symptoms:

- do not resolve **or**
- recur when treatment is stopped.

1.3.5 When choosing between H_2RAs and PPIs take into account:

- the availability of age-appropriate preparations
- the preference of the parent (or carer), child or young person (as appropriate)
- local procurement costs.

1.3.6 Treat endoscopically determined oesophagitis with an H_2RA or PPI.

1.3.7 Repeat endoscopy may be needed after PPI or H_2RA therapy to guide treatment and confirm mucosal healing.

1.3.8 Do not offer metoclopramide, domperidone or erythromycin to treat GOR or GORD without seeking specialist advice and taking into account their potential to cause adverse events.

1.4 Enteral feeding for GORD

1.4.1 Only consider enteral tube feeding to promote weight gain in infants and children with overt regurgitation and faltering growth if:

- other explanations for poor weight gain have been explored **and/or**
- recommended feeding and medical management of overt regurgitation is unsuccessful.

1.4.2 Before starting enteral tube feeding for infants and children with faltering growth associated with overt regurgitation, agree in advance:

- a specific, individualised nutrition plan
- a strategy to reduce it as soon as possible
- an exit strategy, if appropriate, to stop it as soon as possible.

1.4.3 In infants and children receiving enteral tube feeding for faltering growth associated with overt regurgitation:

- provide oral stimulation, continuing oral feeding as tolerated
- follow the nutrition plan, ensuring that the intended target weight is achieved and that appropriate weight gain is sustained

- reduce and stop enteral tube feeding as soon as possible.

1.5 Surgery for GORD

1.5.1 Offer an upper GI endoscopy with oesophageal biopsies for infants, children and young people before deciding whether to offer fundoplication for presumed GORD.

1.5.2 Think about performing other investigations such as pH–impedance monitoring for infants, children and young people before deciding whether to offer fundoplication.

1.5.3 Consider fundoplication in infants, children and young people with severe, intractable GORD if:

- appropriate medical treatment has been unsuccessful **or**
- feeding regimens to manage GORD prove impractical, for example, in the case of long-term, continuous, thickened enteral tube feeding.

2 Research recommendations

The Guideline Development Group has made the following recommendations for research, based on its review of evidence, to improve NICE guidance and patient care in the future. The Guideline Development Group's full set of research recommendations is detailed in the full guideline.

2.1 Symptoms of gastro-oesophageal reflux (GOR) and/or gastro-oesophageal reflux disease (GORD) in children and young people with a neurodisability

What are the symptoms associated with GOR and/or GORD in children and young people with a neurodisability?

Why this is important

The available evidence on the symptoms associated with GOR and/or GORD in children and young people with a neurodisability is limited and of poor quality. The lack of a set of clearly defined features makes GOR and/or GORD difficult to recognise and differentiate from other vomiting problems. The proposed study would

use objective measures of reflux (such as pH monitoring) to assess the GOR and/or GORD symptoms in children and young people with a neurodisability.

2.2 Cow's milk protein elimination

What is the efficacy of cow's milk protein elimination in GOR and/or GORD?

Why this is important

There is a widespread belief that GOR and/or GORD in formula-fed infants is often caused by intolerance to cow's milk. As a result, health professionals often prescribe a trial of hydrolysed formula as a substitute for cow's milk formula. This often leads to infants remaining on hydrolysed formula for extended periods based on a subjective assessment. Because hydrolysed formula is more expensive than cow's milk formula, this has resource implications. However, there is no evidence on the clinical or cost effectiveness of this approach. Therefore, it is proposed that a randomised controlled trial is undertaken to explore this question.

2.3 Fundoplication and pH monitoring

What are the effects on pH monitoring results before and after fundoplication?

Why this is important

Fundoplication is used to manage severe GORD. At present, there is limited evidence showing that overt regurgitation is reduced after surgery. However, this has not been objectively measured. In addition, the effect of surgery on occult reflux has not been assessed. This is important because surgery may be masking a continuing problem. The proposed study would monitor regurgitation before and after fundoplication using pH monitoring. This may help health professionals identify which children and young children will benefit from surgery.

3 Other information

3.1 Scope and how this guideline was developed

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover.

How this guideline was developed

NICE commissioned the National Collaborating Centre for Women's and Children's Health to develop this guideline. The Centre established a Guideline Development Group (see section 4), which reviewed the evidence and developed the recommendations.

The methods and processes for developing NICE clinical guidelines are described in The guidelines manual.

3.2 Related NICE guidance

Details are correct at the time of consultation on the guideline (July 2014). Further information is available on the NICE website.

Published

General

- Medicines adherence. NICE clinical guidance 76 (2009).

Condition-specific

- Autism – management of autism in children and young people. NICE clinical guideline 170 (2013).
- Feverish illness in children. NICE clinical guideline 160 (2013).
- Endoscopic radiofrequency ablation for gastro-oesophageal reflux disease. NICE interventional procedure guidance 461 (2013).
- Laparoscopic insertion of a magnetic bead band for gastro-oesophageal reflux disease. NICE interventional procedure guidance 431 (2012).
- Spasticity in children and young people. NICE clinical guideline 145 (2012).
- Endoluminal gastroplication for gastro-oesophageal reflux disease. NICE interventional procedure guidance 404 (2011).
- Food allergy in children and young people. NICE clinical guideline 116 (2011).
- Barrett's oesophagus – ablative therapy. NICE clinical guideline 106 (2010).
- Constipation in children and young people. NICE clinical guideline 99 (2010).

- Diarrhoea and vomiting in children under 5. NICE clinical guideline 84 (2009).
- Surgical management of otitis media with effusion in children. NICE clinical guideline 60 (2008).
- Urinary tract infection in children. NICE clinical guideline 54 (2007).
- Endoscopic augmentation of the lower oesophageal sphincter using hydrogel implants for the treatments of gastro-oesophageal reflux disease. NICE interventional procedure guideline 222 (2007).
- Catheterless oesophageal pH monitoring. NICE interventional procedure guidance 187 (2006).
- Obesity. NICE clinical guideline 43 (2006).
- Dyspepsia. NICE clinical guideline 17 (2004).
- Endoscopic injection of bulking agents for gastro-oesophageal reflux disease. NICE interventional procedure guidance 55 (2004).

Under development

NICE is developing the following guidance (details available from the NICE website):

- Dyspepsia and gastro-oesophageal reflux disease (update). NICE clinical guideline. Publication expected September 2014.
- Obesity (update). NICE clinical guideline. Publication expected October 2014.

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