

Question rank after first prioritization	Question code	Importance	Answered?	No. of risk identified from each strategy	Evidence	Total submissions	patients	MDTs	Cases	Officers	On case	Unknown	Summary of submitted evidence	
1	1	What causes hypertension gravidarum?	No	2	Various papers with new research to suggest early, low definition answer or SR yet. Park, S. N., Iacoboni, S. N. 2010 Risk factors for hypertension gravidarum. Current Women's Health Reviews - Volume 6, Issue 4, pp. 309-317. Systematic review from 2002 studies. A few risk factors. Low pre-pregnancy weight, Helicobacter pylori infection, a history of hypertension in a previous pregnancy, and carrying a female fetus but calls for further research with better definition of maternal weight. 2010	283	243	28	0	0	11	1	Summary of submitted evidence: Where does HG come from? What causes HG to begin with and why does it only affect some women? What medical studies have been conducted to find the cause / cure for HG? Why do we get HG? What is the pathophysiology behind hypertension gravidarum? Why do some women get HG and others don't? Why does one person get HG and the other don't?	
11		What are the risk factors for developing HG and can we predict who will develop it?	No	16	Multiple studies with varying results. Some suggest early, low definition answer or SR yet. 2010	59	59	77	21	0	0	1	Are there any ways to predict who will develop HG? As they learn more about HG, do some of women could be identified before they get HG? Is there a test being developed to determine likelihood of suffering HG? Can we genetic testing to identify women as risk and offer preventative measures earlier? And will this lessen the severity? View our evidence table and other related links	
3	3	Is there a risk that HG will recur in a subsequent pregnancy? Does HG get progressively worse with subsequent pregnancies and what are the risk factors for recurrence?	No	8	Supervary from 45-81%, meta analysis not possible. 2010	212	193	10	10	10	10	0	What is the recurrence risk? Will I definitely have HG again in future pregnancies? Does hypertension get worse with each pregnancy? What are the chances that you get HG with the following pregnancy/ pregnancies? If you have HG, how likely are you to get it a second time? What are the chances of getting HG again after suffering with it during my first pregnancy? Is HG more severe dependent on partner? Are you likely to get HG again if you use sperm from a different man/donor? How much of an influence does the sperm have?	
6	6	What clinical measurements and markers are most useful in assessing, diagnosing, managing and monitoring hypertension?	No	2	Niemeyer, M. N., Groden, J. J., Van, N., Bain, J. M., van der Post, J. A., Mei, B. W., Rosborough, T. J., Loufang, M. M., Pariser, A. C., 2014 Diagnostic markers for hypertension gravidarum: a systematic review and meta-analysis American Journal of Obstetrics & Gynecology - Volume 211, Issue 2, pp. 150.e1-150.15. Systematic review concludes no support for the use of telomeric in the diagnosis of HG. It pylori antibody might be useful in specific patients. 2014	31	31	0	0	0	0	0	What anthropometric measure and nutritional markers are most useful in assessing and monitoring hypertension management? (Weight, BMI upper arm circumference, transferrin, ammonia etc???) What clinical indicators determine the likelihood of hospital admission in women with HG? What diagnostic criteria/guidelines would provide the best treatment/outcome? i.e. instead of waiting for significant weight gain and dehydration or "normal" case care that requires these indicators.	
4	4	What objective measures can people use to know when to seek further help or hospital admission?	No	0	None. 2010	7	7	4	1	0	0	0	Self monitoring urine to know when to need help. Is this a possibility? Is there a way for the individual to self monitor how bad things are getting to be able to be proactive? How do you know when you need to go to hospital, or what are the measures of dehydration? remember going to hospital and being told you are not dehydrated enough for treatment follows that was related to go to hospital.	
3	3	Can we predict the severity and duration for individual patients and which treatment they will respond to?	No	1	Some general studies identified but no systematic review or conclusive evidence. 2010	11	11	0	0	0	0	0	What factor predict severity and duration of HG in a pregnancy? Are there any clinical predictors of response to different anti-emetics in HG? Why do some HG sufferers have relief of symptoms after 2-4 months and some are sick each day the day they give birth? Can we predict how long they will last? Is there any way of predicting which patients will respond to which treatment?	
7	7	Does the use of the foetus affect occurrence and/or severity of HG?	No	1	Increased ratio of female to male fetus in HG pregnancies. OR 1.27; 95% CI 1.23-1.34. MNT Vennema. AJOG. 2008. PC Partner. JAMA online first. CI Rosborough, 2012. Complications of hypertension gravidarum for offspring: a systematic review and meta-analysis. BJOG. 2011. 2011	23	23	13	0	1	1	0	What are the chances my HG will be worse with a girl pregnancy than with a boy? Does the sex of the baby (might) make a difference in the gender of complaints of HG? Is there a difference in HG between women who are carrying girls vs boys?	
8	8	Does telomeric have a role in the diagnosis and management of HG?	Yes and no	1	Antibodies does not correlate with severity of HG and should therefore not be used for diagnosis of HG however, this does not answer whether or not they have a role in management of HG. Niemeyer, M. N., Groden, J. J., Van, N., Bain, J. M., van der Post, J. A., Mei, B. W., Rosborough, T. J., Loufang, M. M., Pariser, A. C., 2014 American Journal of Obstetrics & Gynecology - Volume 211, Issue 2, pp. 150.e1-150.15. Systematic review concludes no support for the use of telomeric in the diagnosis of HG. Guidelines conflict but based on "good practice point/critical appraisal". 2014	23	23	13	0	1	1	0	Why do we rely on telomeric to test dehydration? Can treatment be provided before you have telomeric to urine instead of other? Will telomeric measure they do not have to be in telomeric to diagnose dehydration in a patient? Why is telomeric the measure for dehydration? Can it be dehydrated without having telomeric in my urine? Why do women have to get the point of telomeric before their condition is treated seriously?	
18	18	What should the clinical definition of HG be and can it be diagnosed in a timely and consistent way?	No	1	Guidelines are level D evidence. 2010	56	53	0	0	0	0	0	At what point in your morning sickness does HG and is there different levels of HG in MMS/Severe? How can we diagnose and treat patients earlier? Can be telemedicine or pregnancy? How can we identify hypertension earlier in pregnancy? What are the criteria of HG? How can health care professionals help and diagnose HG earlier? How can HG be quickly diagnosed (and not dismissed as simply morning sickness)? My mother had it and was left to cope with it but enough to get a diagnosis? How do you know when you need to tell it's normal?	
27	27	Is having HG a risk factor for requiring induction, section, emergency, other conditions/complications of pregnancy - or particular both outcomes?	No	29	Multiple case-control and cohort studies identified. An SR may be able to answer this. 2010	38	38	28	0	0	4	1	What is the connection with HG and pregnancy diabetes? Could HG be related to any other disease or disorder in my future, just as gestational diabetes is related with the chance of developing diabetes type 2 after pregnancy? Are thyroid issues related to first having HG? Induction and C section rate amongst HG? Is there a link between HG and gestational diabetes? Is HG linked to 3rd trimester or 2nd trimester diabetes? 3 trimester diabetes? 4 trimester diabetes? Has there been any link between HG sufferers and delivery type? Is an increased chance of forces delivery?	
35	35	Does HG act as a barrier? What is the level of risk of experiencing HG for a person with a family history of HG?	No	1	Multiple studies identified. An SR may be able to answer this. 2010	74	63	0	0	0	0	0	Is HG heritable? If my mum had HG what are my chances of getting it? How likely is to get HG if both mother and grandmother had it? Can anything specific mitigate the risk to reduce the chance of developing hypertension themselves during future pregnancies, if their mother suffered hypertension? As I've had HG in my pregnancy what is the likelihood of now suffering from the condition as well? Eg. sister or daughter. Do you have hypertension what are the chances of my daughter having HG?	
26	26	How do factors such as diet, nutrition, stress, tiredness and rest affect symptoms and coping? What can exacerbate symptoms and how can we manage those factors?	No	3	3 studies identified, each on different topics. 2010	21	20	0	0	0	0	0	What is the effect of rest/tiredness on vomiting during pregnancy? Are there any triggers which can worsen hypertension? Are there any factors that aggravate HG? What factors (biological/any psychological/exercise) HG? And how can we manage during HG? Some foods increase hypertension and some foods increase throwing up. Is there a relation? Does fatigue/tiredness/workload affect the nausea and vomiting experience? Do certain food/beverages have more influence on HG?	
5	5	Is HG preventable? What is the effect of preventative treatment or early intervention on the severity and duration of HG in a subsequent pregnancy?	No	1	One study which does not sufficiently answer the question. 2010	168	153	22	0	0	12	1	Is there anything the patient could have done (can do prevent or if)? What can be done to help prevent HG in those identified as at risk, i.e. those who have had it in previous pregnancy. What factors determine duration - do certain treatments or early intervention affect duration or is it determined by the underlying cause? What is the best way to get HG under control ASAP and limit the mental effects to the patient? If you start taking medication early on in pregnancy, will this lessen symptom severity overall?	
30	30	What are the disease characteristics of HG? (Prevalence, onset, duration, symptoms, signs)?	No (and yet)	2	Some aspects answered such as prevalence, but other aspects such as onset, duration, symptoms and peaks not answered. Prevalence SR and meta analysis concluded. The prevalence of HG was 1.1% (0.9%-0.9% - 3%), with a range of 0.3% to 3.6%. Almost 50% of women worldwide experience NVP, but reported rates vary widely. HG, the most severe form, affects 1.3%. Ref: Eranon TR, Pivko C, Koran G. Quantifying the global rates of nausea and vomiting of pregnancy: a meta-analysis. Journal of population therapeutics and clinical pharmacology - Journal of population therapeutics and clinical pharmacology. Volume 2012, Issue 2, pp. 11-18. 2012	46	46	0	0	0	0	0	Numbers of how often HG occurs, are there any differences in different countries / parts of the world? Are there differences in the rate of HG across ethnic groups? How long is this likely to last? What is the chance of HG arising and then returning? While suffering from HG I tend to be spitting every few seconds, can I swallow any of my saliva. Is it safe necessary any research on how long the spitting last? What level of activities are those regarding HG? (discussing, who gets it, how long it will last...) Are there certain weeks when humans always seem to make HG worse? What are the chances that the feeling will last the entire pregnancy? At what week does HG usually improve a bit? How common is it to have HG the whole pregnancy? What are the symptoms of HG compared to the first trimester and for those who get HG?	
23	23	How can symptoms of HG, other than vomiting, be effectively treated? For example the nausea, excessive saliva, excessive vomit of small and frequent.	No	3	Some prevalence studies on pylorus (recessive solution) identified. No discussion of other symptoms in evidence. 2010	35	30	0	0	0	0	0	Is there an effective treatment for hydration? Is there anything to reduce excess saliva that comes had to have with HG? One of the most distressing symptoms of HG for many women is the heightened sense of smell. Is there a medical way to target that symptom in particular? The sickness and nausea is obviously a big part of HG. But how do we treat the less talked about effects including extreme tiredness, no energy, headaches, dizziness, breathlessness, confusion, being unable to stand/measure movement or motivation? Is conventional treatment without feeling that you are going to be sick or faint? How can the other symptoms be reduced (i.e. small amounts, nausea, saliva, extreme fatigue, recurring UTIs). Is there a way to control the extreme sensitivity to smell, which causes so much agony? Is there anything that can be done to dull the extremely heightened sense of smell that a lot of HG patients suffer with? As I normally think it would have linked with the severity of the constant nausea in my case.	
2	2	What are relative efficacies of the current medications and treatment options available? What are the optimal dose, route, timing and combination of the medications and what are the optimal side effects?	No	16	Cochrane review concludes there is little high-quality and consistent evidence supporting any one intervention. Ref: Boring HC, Barton SG, Saccoccia G, Kelly AJ, Edwards SJ, Berghella V. Interventions for treating hypertension gravidarum: The Cochrane database of systematic reviews. 2010;15(2):1502/14651858-CD009072pub2. HTA SR found: there is little on the effectiveness of treatments to more women with HG. Ref: CDromer, A, DelPelle C, Hesson CC, Dwyer J, Midmore E, Bryant A, et al. Treatments for hypertension gravidarum and nausea and vomiting in pregnancy: a systematic review. Cochrane systematic review. Technical issues. 2010;15(2):1502/14651858-CD009072pub2. 2010	253	193	71	0	11	13	1	0	What are the options for treating it? What is the best dosage of a short acting treatment for most effective results for most women? What are all the options available to women who experience HG? My doctor was very dismissive. What are the recommended first, second and third line anti-emetic drugs in HG? When to switch over to the 4th line to second line, and so on? Which is the highest dose of carbon? Best regimen? Do doctors not readily prescribe combination of anti-emetics when patient's symptoms appear unimproved? Are any anti-emetics being researched and developed?
34	34	How can we most effectively manage HG? What clinical support measure is most important to women who have had hypertension and what did they find most beneficial? What medical management, pharmaceutical review, nutritional support, psychological support.	No	1	Some trials, case-control and case studies for various support measures. No SR, no meta-analysis conducted. 2010	34	34	21	0	0	0	0	What is the best way to manage HG? What clinical support measure is most important to women who have had hypertension and what did they find most beneficial? eg medical management, pharmaceutical review, nutritional support, hydration, psychological support. What are the best treatment methods for hypertension gravidarum? What is the treatment recommendations? (including medicines, food intake, intravenous therapy, psychological help...) How can we use the medical intervention available to us to make this disease more manageable for mother and sufferer?	
17	17	Can we find a cure? What novel or new treatments are being developed/used elsewhere which could have a curative effect and address all the symptoms of HG rather than just the vomiting?	No	1	Some small and novel trials identified for gabapentin, clonidine, metoprolol, metformin and other therapies. 2010	66	66	51	0	0	0	0	Is there a cure? Will there ever be a cure for this? Is there not a surgical way or medical way to alleviate this reaction? What treatment can HG be totally cured? This means no vomiting, the nausea, lack of feeling hungry, etc. Over 2 years (including to pregnant and placental) which were recently found to be connected with the root causes of hypertension gravidarum, how can one reduce his / her chances of acquiring this serious cure in a partner since this SR says this is the entire pregnancy? Please try to find a cure!	
4	4	What is the effect of HG on mental health during pregnancy? What is the effect of psychological or symptom management/pregnancy outcome/quality of life on the women who experience hypertension gravidarum?	No (and yet)	1	Systematic review and meta-analysis have shown a significantly increased frequency of depression and anxiety in women with HG. Ref: Mitchell-Jones S, Galton I, Farnon S, Tobias A, Baddison C, Bourne T. Psychological morbidity associated with hypertension gravidarum: a systematic review and meta-analysis. BJOG. 2012;119(1):26-30. For interventions, various studies have assessed interventions, but none are available to the public in a systematic review. 2012	188	188	172	20	0	0	0	What are the barriers to women accessing counselling for HG? Would thoughts and HG. How can this be better supported by the obstetricians, midwives and other health care?	
33	33	How can the condition be effectively managed in the community to prevent lengthy hospital admissions?	No	1	Some studies comparing ambulatory to inpatient care. 2010	17	17	13	0	0	0	0	What is the best management or treatment to get women with HG out of the hospital and back home rather than staying in hospital? What can be done to keep HG sufferers home instead of in hospital? Can hypertension patients prevent themselves getting a situation where they need to be admitted to hospital by having regular IV drips, perhaps day appointments for this or community midwives administer this as a method of prevention/management of the condition? Are women who are car or driver at home with HG more or less likely to suffer from post natal mental health issues?	

