



# Society for Endocrinology Competency Framework for Adult Endocrine Nursing: 2nd edition

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## Abstract

This competency framework was developed by a working group of endocrine specialist nurses with the support of the Society for Endocrinology to enhance the clinical care that adults with an endocrine disorder receive. Nurses should be able to demonstrate that they are functioning at an optimal level in order for patients to receive appropriate care.

By formulating a competency framework from which an adult endocrine nurse specialist can work, it is envisaged that their development as professional practitioners can be enhanced. This is the second edition of the Competency Framework for Adult Endocrine Nursing. It introduces four new competencies on benign adrenal tumours, hypo- and hyperparathyroidism, osteoporosis and polycystic ovary syndrome. The authors and the Society for Endocrinology welcome constructive feedback on the document, both nationally and internationally, in anticipation that further developments and ideas can be incorporated into future versions.

## Key Words

- ▶ nursing
- ▶ endocrinology
- ▶ competency framework

*Endocrine Connections*  
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## Introduction

Competence has been defined as ‘The state of having the knowledge, judgement, skills, energy, experience and motivation required to respond adequately to the demands of one’s professional responsibilities’ (1). It is also defined as ‘being able to demonstrate that the knowledge, values and skills learned can be integrated into practice’ (2).

Adult endocrine nursing is highly specialised and, in recent years, nurses have expanded their roles according to local need. The Society for Endocrinology Nurse Committee believes that professional advice and support

are required for nurses developing their roles in this dynamic and rapidly advancing field (3).

In 2013, the first edition of the Society for Endocrinology Competency Framework for Adult Endocrine Nursing was published (4). Subsequently, four new competencies – benign adrenal tumours, hypo- and hyperparathyroidism, osteoporosis and polycystic ovary syndrome – have been added to this second edition. These competencies build on the work already undertaken by our paediatric endocrine nurse colleagues.



However, we recognise that adult endocrine nurse specialists have a more disparate range of roles. Some nurses may care for a whole range of endocrine disorders, whereas others may concentrate on one specific disease area. Therefore nurses, and their clinical managers, will need to select the competencies which are particular to their role.

In addition, it is recognised that some endocrine nurses may be caring for patients in situations not covered in this document. It is accepted that this is due to the way many posts were initiated to deal with a particular local requirement, and it is hoped that these competencies will help those individual nurses to develop competencies relevant to their own roles. In the future, additional competencies will be developed as the need for them is identified.

Benner's 'Novice to Expert' concept has been used and adapted as the basis for these competencies (5, 6, 7). As a general rule, we would expect nurses new to the specialty to have reached a competent level within 6 months.

An endocrine nurse functioning at 'expert' level is likely to have had some years of experience in the specialty and be working autonomously. We recognise that some nurses could be 'experts' in a particular disease area whilst only achieving a 'competent' level in another area. Not all competencies will apply to all endocrine specialist nurses.

The competency framework has been developed in this context, as well as taking into account other professional and political factors such as:

- The need for the development of UK-wide standards in adult endocrine nursing.
- The need for professional accreditation of skills and knowledge in practice.
- The increased focus on work-based and lifelong learning plus supervision.
- Increasing patient and user expectations.
- The need for leadership in specialist nursing.
- National service frameworks, clinical governance and service modernisation.

### The adult endocrine nurse specialist role

The adult endocrine nurse specialist should be a nurse registered with the Nursing and Midwifery Council (NMC) and holding a first degree. It is envisaged that the endocrine nurse specialist acting in the 'expert' role should hold, or be actively working towards, a Masters

degree. An 'expert' will need to be an Independent Nurse Prescriber to be able to work autonomously at this level of clinical responsibility.

It is hoped that this competency framework will help endocrine nurses to identify their current level of practice and to plan their career in a more structured way by identifying their personal education and development needs.

Progression through the levels will be different for each nurse, depending on context, level of skill, performance appraisal and individual objectives. The endocrine nurse specialist may achieve 'expert' status, in those competencies relevant to them, after ~5 years in post.

Nurses should always be working to advance their practice. In the early 1990s, the UK Central Council for Nursing, Midwifery and Health Visiting – now the Nursing and Midwifery Council (NMC) – developed a Code of Conduct (8) which clearly describes how all nurses, midwives and health visitors must endeavour always to achieve, maintain and develop knowledge, skills and competence, and this was echoed in 2008 (9). It has been acknowledged that nurses are increasingly extending their roles and expanding their scope of practice beyond initial registration (10).

### How to use the framework

The framework focuses on knowledge, skills and interventions that are specific to nurses working as adult endocrine nurses. Although the intention is for this framework to have a stand-alone function, it should be used in conjunction with other frameworks that focus on core skills and competencies for all qualified nurses and in conjunction with local and national guidelines.

### Benefits of the framework

The competency framework provides benefits for nurses, their employers, patients and the public.

Nurses benefit because it helps to:

- Deliver consistently high standards of care.
- Identify the level of practice and plan a career in a more structured way.
- Pinpoint personal educational and developmental needs.
- Realise potential more effectively.
- Seize opportunities to influence the direction of nursing.

Employers benefit because it provides:

- A model to ensure consistently high standards of care.
- Clearer insights into the expertise and competence of staff; for example, in assessment of risk management.
- Assistance in organisational planning.

Patients and the public benefit because it makes it possible to deliver:

- Consistently high standards of patient care.
- Increased effectiveness of service provision.
- Improved access and choice for care provision.

It is envisaged that this document will be a useful tool for:

- Supporting job descriptions and pay reviews/negotiations by detailing targets in accordance with local and national guidelines and policies.
- Assessing clinical competence at differing levels.
- Developing personal goals and objectives.
- Performance appraisal.

## Specialist competencies

The adult endocrine nurse specialist competency framework is presented in the following tables:

Competency 1: Acromegaly.

Competency 2: Benign adrenal tumours.

Competency 3: Cushing's syndrome.

Competency 4: Endocrine dynamic function testing.

Competency 5: Growth hormone deficiency.

Competency 6: Hypo- and hyperparathyroidism.

Competency 7: Hypogonadism.

Competency 8: Hypopituitarism.

Competency 9: Osteoporosis.

Competency 10: Polycystic ovary syndrome.

Competency 11: Steroid replacement therapy for disorders of the pituitary and adrenal glands.

Competency 12: Thyroid disease.

Competency 13: Transition.



**Competency 1** Acromegaly.

Competent	Proficient	Expert
<p>As competent plus</p> <ul style="list-style-type: none"> <li>Understands the pathophysiology of acromegaly including signs, symptoms and diagnosis and is able to explain this to the patient</li> <li>Has knowledge and understanding of investigations required according to national evidence-based guidelines<sup>a</sup></li> <li>Has awareness and knowledge of local GH and IGF1 reference ranges</li> <li>Knows local and national policies, protocols and shared care guidelines</li> <li>Knows appropriate investigations and treatment modalities and is able to explain these to the patient<sup>a</sup></li> <li>Acknowledges the role of patient support services and is able to guide the patient on how they may be accessed</li> <li>Acknowledges psychological aspects of the condition</li> <li>Supports the patient and family by listening to their concerns, offering access to further support as needed</li> <li>Accurately documents and communicates with members of the wider team</li> </ul>	<p>As competent plus</p> <ul style="list-style-type: none"> <li>Recognises abnormal test results and escalates appropriately<sup>a,b,c</sup></li> <li>Provides disease-specific education to the patient regarding the long-term effects of the diagnosis and management</li> <li>Initiates medical therapies including self-injection techniques and monitors appropriately; advises patient of the potential side effects and when to seek advice</li> <li>Incorporates research and evidence-based practice into clinical service</li> <li>Adheres to local and national policies, protocols and shared care guidelines</li> <li>Provides teaching and support to colleagues within the primary care setting</li> <li>Has knowledge of current clinical trials and referral pathways</li> <li>Recognises condition-specific psychological issues and provides support to patient and family</li> <li>Acts as a role model for junior staff</li> </ul>	<p>As competent and proficient plus</p> <ul style="list-style-type: none"> <li>Uses biochemical evidence to design and implement clinical pathways, including prescribing as appropriate<sup>a,b,c</sup></li> <li>Is able to assess the effectiveness of treatment</li> <li>Initiates additional necessary biochemical and radiological investigations<sup>a</sup></li> <li>Assesses cost implications and effectiveness of treatment options, including ability to facilitate access to funding</li> <li>Develops advanced practice through leadership and consultancy</li> <li>Identifies service shortfalls and develops strategies to address them</li> <li>Takes responsibility for integration of national and local policies</li> <li>Supports, teaches and assesses junior staff</li> </ul>

<sup>a</sup>Endocrine dynamic function testing competency.<sup>b</sup>Steroid replacement therapy for disorders of the pituitary and adrenal glands competency.<sup>c</sup>Hypopituitarism competency.

**Competency 2** Benign adrenal tumours.

	<b>Proficient</b> As competent plus	<b>Expert</b> As competent and proficient plus
<b>Competent</b>	<ul style="list-style-type: none"> <li>• Demonstrates an understanding of the anatomy, physiology and normal functioning of adrenal glands</li> <li>• Demonstrates awareness of benign adrenal tumours, e.g. incidentalomas, pheochromocytomas and Conn's syndrome</li> <li>• Demonstrates basic knowledge of how adrenal function may change with benign adrenal tumours</li> <li>• Accurately explains investigations to the patient and relatives</li> <li>• Is able to carry out tests under supervision using locally agreed protocols<sup>a</sup></li> <li>• Supports the patient and family by listening to their concerns, offering access to further support as needed</li> <li>• Accurately documents and communicates with members of the wider team</li> </ul>	<ul style="list-style-type: none"> <li>• Develops and runs nurse-led services to investigate patients with adrenal incidentalomas</li> <li>• Actively participates in multi-disciplinary team (MDT) discussions, providing advice about the appropriate endocrine tests required to other specialities within the team<sup>a</sup></li> <li>• Initiates additional necessary biochemical and radiological investigations as locally agreed</li> <li>• Interprets results and makes an autonomous decision on the next stage of care i.e. initiates care pathway for benign, or refers on to appropriate service for malignant disease</li> <li>• Develops best practice through leadership and consultancy</li> <li>• Identifies service shortfalls and develops strategies to address them, incorporating research and evidence-based practice</li> <li>• Takes responsibility for integration of national and local policies</li> <li>• Supports, teaches and assesses junior staff in relation to this competency</li> </ul>

<sup>a</sup>Endocrine dynamic function testing competency.



**Competency 3** Cushing's syndrome.

	<b>Proficient</b>	<b>Expert</b>
<b>Competent</b>	As competent plus	As competent and proficient plus
	<ul style="list-style-type: none"> <li>Understands the pathophysiology of the normal hypothalamic-pituitary-adrenal (HPA) axis and recognises deviation from the norm</li> <li>Is able to recognise symptoms of Cushing's through clinical history-taking</li> <li>Has knowledge and understanding of investigations and local biochemistry values required in order to diagnose the condition<sup>a</sup></li> <li>Is able to explain Cushing's disease, Cushing's syndrome and cyclical Cushing's to a patient in simple terms, including signs and symptoms, investigations, and possible treatment options</li> <li>Can co-ordinate investigations and admission plan</li> <li>Supports the patient and family by listening to their concerns, offering access to further support as needed</li> <li>Accurately documents and communicates with members of the wider team</li> </ul>	<ul style="list-style-type: none"> <li>Can understand false-positive and -negative results and initiates alternative investigation<sup>a</sup></li> <li>Is able to monitor patients in a nurse-led environment and to assess the effectiveness of treatment including signs, symptoms, and biochemical control<sup>a,b,c</sup></li> <li>Designs, implements, and regularly evaluates individualised patient clinical care pathways, including prescribing and titrating appropriate medications</li> <li>Evaluates practice through audit and research</li> <li>Develops advanced practice through leadership and consultancy</li> <li>Supports, teaches and assesses junior staff</li> <li>Identifies service shortfalls and develops strategies to address them</li> </ul>

<sup>a</sup>Endocrine dynamic function testing competency.<sup>b</sup>Steroid replacement therapy for disorders of the pituitary and adrenal glands competency.<sup>c</sup>Hypopituitarism competency.

**Competency 4** Endocrine dynamic function testing.

<b>Competent</b>	<b>Proficient</b>	<b>Expert</b>
<p>As competent plus</p> <ul style="list-style-type: none"> <li>• Demonstrates an understanding of the anatomy, physiology and normal functioning of the endocrine system</li> <li>• Demonstrates awareness of common endocrine dynamic function tests and is able to explain in simple terms the rationale behind protocols</li> <li>• Demonstrates knowledge of normal biochemical ranges</li> <li>• Has awareness of role and responsibilities in relation to tests and investigations</li> <li>• Is able to provide the patient and family with an explanation of the selected dynamic test and the rationale for it</li> <li>• Performs low-risk tests under supervision according to agreed protocol</li> <li>• Assists senior nurse or medical practitioner in carrying out higher risk tests</li> <li>• Supports the patient and family by listening to their concerns, offering access to further support as needed</li> <li>• Accurately documents and communicates with members of the wider team</li> </ul>	<p>As competent plus</p> <ul style="list-style-type: none"> <li>• Demonstrates an understanding of the factors affecting the reliability of an endocrine test</li> <li>• Has knowledge of the safety parameters of each dynamic test and ability to escalate concerns</li> <li>• Safely and competently carries out complex tests with supervision from senior nurse or experienced medical practitioner</li> <li>• Can identify abnormal test results and escalate appropriately</li> <li>• Discusses the need for further tests with the multi-disciplinary team (MDT)</li> <li>• Provides teaching and support to colleagues within the wider hospital team and primary care</li> <li>• Incorporates research and evidence-based practice into clinical service</li> <li>• Supervises less experienced nursing colleagues undertaking tests</li> <li>• Acts as a role model for junior staff</li> </ul>	<p>As competent and proficient plus</p> <ul style="list-style-type: none"> <li>• Safely, competently and autonomously carries out complex tests</li> <li>• Has the knowledge and ability to initiate an alternative test when requested test is contraindicated</li> <li>• Develops and updates evidence-based protocols for dynamic function tests</li> <li>• Interprets results and acts appropriately as indicated</li> <li>• Accepts direct referrals from non-endocrine consultants as agreed by local protocols</li> <li>• Provides advice on all aspects of endocrine tests at local and regional level</li> <li>• Evaluates practice through audit and research</li> <li>• Develops advanced practice through leadership and consultancy</li> <li>• Identifies service shortfalls and develops strategies to address them</li> <li>• Takes responsibility for integration of national and local policies</li> <li>• Supports, teaches and assesses junior staff</li> </ul>

It is understood that this is read in conjunction with all the other competencies.



**Competency 5** Growth hormone deficiency.

	<b>Proficient</b>	<b>Expert</b>
	As competent plus	As competent and proficient plus
<b>Competent</b>	<ul style="list-style-type: none"> <li>Understands the pathophysiology of growth hormone deficiency, including signs and symptoms and diagnosis, and is able to explain this to the patient</li> <li>Has knowledge and understanding of appropriate investigations required<sup>a</sup></li> <li>Has knowledge and understanding of the requirements for growth hormone replacement in accordance with the National Institute of Health and Care Excellence (NICE) guidelines<sup>b</sup></li> <li>Is aware of insulin-like growth factor 1 (IGF1) reference ranges</li> <li>Is aware of the range of growth hormone devices</li> <li>Acknowledges the role of patient support services and is able to guide the patient on how they may be accessed</li> <li>Supports the patient and family by listening to their concerns, offering access to further support as needed</li> </ul>	<ul style="list-style-type: none"> <li>Contributes to discussions on access to funding in accordance with local shared care agreement</li> <li>In accordance with NICE guidelines, is able to initiate and adjust growth hormone dosage, assess effectiveness and make a clinical decision on continuation of treatment</li> <li>Initiates additional necessary biochemical and radiological investigations</li> <li>Develops and provides a nurse-led service relating to growth hormone replacement</li> <li>Develops advanced practice through leadership and consultancy</li> <li>Identifies service shortfalls and develops strategies to address them</li> <li>Takes responsibility for integration of national and local policies</li> <li>Liaises with relevant patient support groups, sharing expertise and collaborating with the wider community</li> <li>Supports, teaches and assesses junior staff</li> </ul>

<sup>a</sup>Endocrine dynamic function testing competency.<sup>b</sup>National Institute of Health and Care Excellence (NICE), see [www.nice.org.uk](http://www.nice.org.uk)



**Competency 6** Hypo- and hyperparathyroidism.

Competent	Proficient	Expert
<p>As competent plus</p> <ul style="list-style-type: none"> <li>• Understands the anatomy and physiology of the normal parathyroid gland</li> <li>• Recognises signs and symptoms of hypo- and hyperparathyroidism, and the influence of calcium and vitamin D</li> <li>• Demonstrates knowledge and understanding of appropriate investigations and is able to explain these to the patient</li> <li>• Is able to explain the diagnosis and treatment modalities to the patients</li> <li>• Supports the patient and family by listening to their concerns offering access to further support as needed</li> <li>• Accurately documents and communicates with members of the wider team</li> </ul>	<p>As competent plus</p> <ul style="list-style-type: none"> <li>• Recognises abnormal test results and escalates appropriately</li> <li>• Demonstrates an understanding of the limitations of investigations</li> <li>• Advises patient of risks and benefits associated with the various treatment options including medical and surgical management</li> <li>• Provides disease-specific education to the patient on the long-term effects of the diagnosis and management</li> <li>• Recognises condition-specific psychological issues and provides support to patient and family</li> <li>• Incorporates research and evidence-based practice into clinical service</li> <li>• Acts as a role model for junior staff</li> </ul>	<p>As competent and proficient plus</p> <ul style="list-style-type: none"> <li>• Can interpret investigation results and make clinical and prescribing decisions regarding treatment</li> <li>• Actively participates in multi-disciplinary team (MDT) discussions on individual patient's management</li> <li>• Is able to assess the effectiveness of treatment including signs symptoms and biochemical control</li> <li>• Identifies service shortfalls and develops strategies to address them</li> <li>• If appropriate develops a nurse-led service</li> <li>• Evaluates practice through audit and research</li> <li>• Develops advanced practice through leadership and consultancy</li> <li>• Supports, teaches and assesses junior staff</li> <li>• Liaises with relevant patient support groups sharing expertise and collaborating with the wider community</li> </ul>



**Competency 7** Hypogonadism.

	<b>Proficient</b> As competent plus	<b>Expert</b> As competent and proficient plus
<b>Competent</b>	<ul style="list-style-type: none"> <li>• Understands the pathophysiology of hypogonadism, including signs, symptoms and diagnosis, and is able to explain this to the patient</li> <li>• Has knowledge and understanding of investigations, including local biochemistry ranges, in order to diagnose the condition<sup>a</sup></li> <li>• Knows local prescribing policies and protocols</li> <li>• Knows appropriate treatment modalities and is able to explain these to the patient</li> <li>• Supports the patient and family by listening to their concerns, offering access to further support as needed</li> <li>• Accurately documents and communicates with members of the wider team</li> </ul>	<ul style="list-style-type: none"> <li>• Undertakes an in-depth health assessment to diagnose and identify cause of gonadal dysfunction</li> <li>• Interprets investigation results and makes clinical and prescribing decisions regarding treatment</li> <li>• Assesses the effectiveness of treatment including signs, symptoms and biochemical response</li> <li>• Initiates additional necessary biochemical and radiological investigations</li> <li>• Develops and provides a nurse-led service</li> <li>• Develops advanced practice through leadership and consultancy</li> <li>• Evaluates practice through audit and research</li> <li>• Identifies service shortfalls and develops strategies to address them</li> <li>• Takes responsibility for integration of national and local policies</li> <li>• Supports, teaches and assesses junior staff</li> </ul>

<sup>a</sup>Endocrine dynamic function testing competency.



**Competency 8** Hypopituitarism.

Competent	Proficient	Expert
<p>As competent plus</p> <ul style="list-style-type: none"> <li>Understands the normal anatomy and physiology of the pituitary and the disease processes which may cause hypopituitarism</li> <li>Can explain hypopituitarism and the necessity of hormone replacement to patients, using clear unambiguous language</li> <li>Knows and understands appropriate investigations required</li> <li>Can carry out dynamic pituitary testing according to agreed local protocols<sup>a</sup></li> <li>Understands the importance of steroid sick day rules and communicates these to patients in a manner that promotes safety and concordance<sup>b</sup></li> <li>Can recognise the impact of hormone replacement on patient well-being and identifies when input is needed from other members of the multi-disciplinary team (MDT)</li> <li>Acknowledges the psychological aspects of the condition</li> <li>Supports the patient and family by listening to their concerns, offering access to further support as needed</li> <li>Accurately documents and communicates with members of the wider team</li> </ul>	<p>As competent plus</p> <ul style="list-style-type: none"> <li>Understands the nature of treatment and disease modalities that may lead to hypopituitarism and is able to discuss these with the patient</li> <li>Reviews dynamic testing results and is able to identify hypopituitarism and escalate appropriately<sup>a</sup></li> <li>Demonstrates ability to discuss all hormone replacement options, including product availability, advantages and potential side effects<sup>b,c,d,e</sup></li> <li>Ensures effective monitoring of patients on hormone replacements is carried out, according to local policy and national guidelines<sup>b,c,d,e</sup></li> <li>Reviews monitoring results; initiates and contributes to discussion of appropriate treatment</li> <li>Actively promotes steroid sick day rule knowledge within the selected patient group, verifying understanding and concordance<sup>b</sup></li> <li>Demonstrates knowledge of evidence-based practice, current research and developments in pituitary care</li> <li>Has knowledge of current clinical trials and referral pathways</li> <li>Recognises condition-specific psychological issues and provides support to patient and family</li> <li>Acts as a role model for junior staff</li> </ul>	<p>As competent and proficient plus</p> <ul style="list-style-type: none"> <li>Displays a comprehensive knowledge of the disease process, and can evaluate biochemical results and scans</li> <li>Demonstrates advanced communication skills to share complex information with patients regarding the risks/benefits of surgical, medical and radiotherapy treatment options</li> <li>Designs, implements and regularly evaluates an individualised patient clinical care pathway</li> <li>Can analyse dynamic testing results and prescribe when appropriate, recognising when medical input is needed<sup>a</sup></li> <li>Interprets monitoring results, advising on treatment changes or adjustment</li> <li>Actively takes part in MDTs discussing complex patients and their management</li> <li>Identifies patients at increased risk and develops robust strategies to achieve safety and concordance with prescribed replacements<sup>b</sup></li> <li>Liaises with relevant patient support groups, sharing expertise and collaborating with the wider community</li> <li>Identifies service shortfalls and develops strategies to address them</li> <li>Develops advanced practice through leadership and consultancy</li> <li>Supports, teaches and assesses junior staff</li> </ul>

<sup>a</sup>Endocrine dynamic function testing competency.<sup>b</sup>Steroid replacement therapy for disorders of the pituitary and adrenal glands competency.<sup>c</sup>Growth hormone deficiency competency.<sup>d</sup>Hypogonadism competency.<sup>e</sup>Thyroid disease competency.

**Competency 9** Osteoporosis.

	<b>Proficient</b> As competent plus	<b>Expert</b> As competent and proficient plus
<p><b>Competent</b></p> <ul style="list-style-type: none"> <li>• Demonstrates an understanding of the mechanisms/ disease processes which may cause or contribute to osteoporosis</li> <li>• Has knowledge and understanding of national guidelines for osteoporosis</li> <li>• Knows the appropriate treatment modalities and is able to explain these to the patient</li> <li>• Recognises the impact of diagnosis for patients and that individual lifestyle choices may impact on bone health</li> <li>• Offers access to further support as needed, e.g. patient support groups, psychological support</li> <li>• Accurately documents and communicates with members of the wider team</li> </ul>	<ul style="list-style-type: none"> <li>• Understands the nature of osteoporosis disease progression and is able to discuss individual outcomes with patients</li> <li>• Demonstrates the ability to select and commence appropriate treatment according to local/ national protocols</li> <li>• Discusses with patients the advantages and possible disadvantages of all treatment options</li> <li>• Demonstrates effective monitoring of patients, ordering dual energy x-ray absorptiometry (DEXA) scans and biochemical bone markers, according to local policy and national guidelines</li> <li>• Interprets monitoring results, advising on treatment changes or adjustment</li> <li>• Promotes lifestyle changes which positively impact on health and bone strength</li> <li>• Recognises condition-specific psychological issues and provides support to patient and family</li> <li>• Acts as a role model for junior staff</li> </ul>	<ul style="list-style-type: none"> <li>• Develops and provides a nurse-led osteoporosis service</li> <li>• Is able to diagnose osteopenia/osteoporosis using advanced knowledge of radiological and biochemical investigations</li> <li>• Actively participates in MDT discussions on individual patient's management</li> <li>• Designs, implements and regularly evaluates individualised clinical care pathways, including prescribing, utilising relevant up to date research</li> <li>• Identifies service shortfalls and develops strategies to address them</li> <li>• Participates in research-based activity in order to enhance evidence-based practice</li> <li>• Liaises with relevant patient support groups sharing expertise and collaborating with the wider community</li> <li>• Develops advanced practice through leadership and consultancy</li> <li>• Supports, teaches and actively assesses junior staff in relation to this competency</li> </ul>



**Competency 10** Polycystic ovary syndrome (PCOS).

	Proficient	Expert
<b>Competent</b>	As competent plus	As competent and proficient plus
	<ul style="list-style-type: none"> <li>• Understands the pathophysiology of polycystic ovary syndrome including signs, symptoms and diagnosis and is able to explain this to the patient</li> <li>• Demonstrates knowledge and understanding of appropriate diagnostic investigations and treatment modalities and is able to explain these to the patient</li> <li>• Acknowledges the role of patient support services and is able to guide the patient on how they may be accessed</li> <li>• Acknowledges the psychological aspects of the condition and offers access to further support as needed</li> <li>• Accurately documents and communicates with members of the wider team</li> </ul>	<ul style="list-style-type: none"> <li>• Develops a nurse-led service to investigate, treat and monitor patients with polycystic ovary syndrome</li> <li>• Is able to diagnose PCOS using advanced knowledge of radiological and biochemical investigations</li> <li>• According to local guidelines and protocols accepts direct referrals from other specialities</li> <li>• Assesses the effectiveness of treatments including signs, symptoms and biochemical response</li> <li>• Liaises with relevant patient support groups, sharing expertise and collaborating with the wider community</li> <li>• Evaluates practice through audit and research</li> <li>• Develops best practice through leadership and consultancy</li> <li>• Identifies service shortfalls and develops strategies to address them incorporating research and evidence-based practice</li> <li>• Takes responsibility for integration of national and local policies</li> <li>• Supports, teaches and assesses junior staff</li> </ul>



## Endocrine Connections

**Competency 11** Steroid replacement therapy for disorders of the pituitary and adrenal glands.

Competent	Proficient	Expert
<p>As competent plus</p> <ul style="list-style-type: none"> <li>Understands the pathophysiology of disorders of the hypothalamic-pituitary-adrenal (HPA) axis, including signs, symptoms and diagnosis</li> <li>Has knowledge of endocrine disorders requiring steroid replacement</li> <li>Knows and understands investigations required to recognise steroid deficiency<sup>a</sup></li> <li>Can explain the reasons for taking and the consequences of not taking steroid medication</li> <li>Understands the importance of steroid sick day rules and communicates these to the patient in a manner that promotes safety and concordance</li> <li>Can teach the patient appropriate emergency treatment techniques and assess their level of understanding and competence</li> <li>Educates the patient to recognise when to seek medical assistance in times of inter-current illness</li> <li>Acknowledges psychological aspects of condition</li> <li>Acknowledges the role of patient support services and is able to guide the patient on how they may be accessed</li> <li>Supports the patient and family by listening to their concerns, offering access to further support as needed</li> <li>Informs and educates the patient regarding the importance of steroid cards and medical identification emblems</li> <li>Accurately documents and communicates with members of the wider team</li> </ul>	<p>As competent plus</p> <ul style="list-style-type: none"> <li>Recognises abnormal test results and initiates discussion of these with senior staff if appropriate<sup>a</sup></li> <li>Can distinguish between primary and secondary adrenal insufficiency and explain this to the patient<sup>b</sup></li> <li>Empowers patient to take control of steroid management and administration on a daily basis and during inter-current illness</li> <li>Can explain and discuss complex replacement regimens</li> <li>Informs patient of potential side effects of over- and under-replacement and when to seek advice</li> <li>Advises and provides information on life style management in relation to steroid replacement</li> <li>Incorporates research and evidence-based practice into clinical service</li> <li>Has knowledge of current clinical trials and referral pathways</li> <li>Recognises condition-specific psychological issues and provides support to patient and family</li> <li>Provides support to colleagues within the primary and secondary care setting</li> <li>Acts as a role model for junior staff</li> </ul>	<p>As competent and proficient plus</p> <ul style="list-style-type: none"> <li>Can interpret investigation results and make clinical and prescribing decisions regarding treatment<sup>a</sup></li> <li>Is able to assess the effectiveness of treatment, including signs, symptoms and biochemical control</li> <li>Initiates additional necessary biochemical and radiological investigations<sup>a</sup></li> <li>Develops and provides a nurse-led service relating to steroid replacement</li> <li>Develops advanced practice through leadership and consultancy</li> <li>Takes responsibility for integration of national and local policies</li> <li>Liaises with relevant patient support groups, sharing expertise and collaborating with the wider community</li> <li>Identifies service shortfalls and develops strategies to address them</li> <li>Supports, teaches and assesses junior staff</li> </ul>

<sup>a</sup>Endocrine dynamic function testing competency.<sup>b</sup>Hypopituitarism competency.

**Competency 12** Thyroid disease.

	<b>Proficient</b>	<b>Expert</b>
<b>Competent</b>	As competent plus	As competent and proficient plus
<ul style="list-style-type: none"> <li>• Demonstrates knowledge of thyroid function tests in relation to normal and abnormal thyroid function</li> </ul>	<ul style="list-style-type: none"> <li>• Can identify hyperthyroidism and hypothyroidism on thyroid function results</li> </ul>	<ul style="list-style-type: none"> <li>• Undertakes an in-depth health assessment and clinical examination to diagnose and identify cause of thyroid disease</li> </ul>
<ul style="list-style-type: none"> <li>• Can explain thyroid anatomy and physiology to the patient in simple terms</li> </ul>	<ul style="list-style-type: none"> <li>• Is able to recognise symptoms of thyroid dysfunction through clinical history taking and when reported by a patient</li> </ul>	<ul style="list-style-type: none"> <li>• Is able to identify thyroid enlargement, nodules and cysts</li> </ul>
<ul style="list-style-type: none"> <li>• Can explain the reasons for taking and the consequences of not taking thyroid medication</li> </ul>	<ul style="list-style-type: none"> <li>• Recognises thyroid function results which show subclinical disease and discusses these patients individually with senior staff</li> </ul>	<ul style="list-style-type: none"> <li>• Arranges appropriate investigations and is able to interpret the results before developing a clinical treatment plan</li> </ul>
<ul style="list-style-type: none"> <li>• Is able to explain potential side effects of the medication and required action if they occur</li> </ul>	<ul style="list-style-type: none"> <li>• Can explain to the patient the options for definitive treatment, including potential benefits, side effects and complications</li> </ul>	<ul style="list-style-type: none"> <li>• Can assess whether a patient with subclinical disease requires treatment</li> </ul>
<ul style="list-style-type: none"> <li>• Can identify when the patient's symptoms should be discussed with more senior nursing or medical staff</li> </ul>	<ul style="list-style-type: none"> <li>• According to local guidelines may make changes to doses or prescribe thyroid replacement</li> </ul>	<ul style="list-style-type: none"> <li>• Prescribes and monitors effect of appropriate drugs for thyroid over- or under-activity</li> </ul>
<ul style="list-style-type: none"> <li>• Supports the patient and family by listening to their concerns, offering access to further support as needed</li> </ul>	<ul style="list-style-type: none"> <li>• Recognises condition-specific psychological issues and provides support to patient and family</li> </ul>	<ul style="list-style-type: none"> <li>• Can explain treatment for thyroid cancer appropriate to the individual patient pathway</li> </ul>
<ul style="list-style-type: none"> <li>• Accurately documents and communicates with members of the wider team</li> </ul>	<ul style="list-style-type: none"> <li>• Has knowledge of current clinical trials and referral pathways</li> <li>• Acts as a role model for junior staff</li> </ul>	<ul style="list-style-type: none"> <li>• Supports, teaches and assesses junior staff</li> </ul>
		<ul style="list-style-type: none"> <li>• Develops, implements, evaluates and reviews clinical guidelines/standard operating procedures in relation to specialist nursing care of patients with thyroid disease</li> <li>• Identifies service shortfalls and develops strategies to address them</li> <li>• Develops advanced practice through leadership and consultancy</li> </ul>



**Competency 13** Transition: this competency relates to the adolescent (16+) transferring from the Paediatric to the Adult Endocrine Service.

Competent	Proficient	Expert
As competent plus	As competent plus	As competent and proficient plus
<ul style="list-style-type: none"> <li>• Demonstrates an understanding of the anatomy, physiology and normal functioning of the endocrine system</li> <li>• Demonstrates an understanding of the changing needs of adolescents and young adults with endocrine disorders</li> <li>• Has an understanding of how an individual's physical and psychological development can influence concordance</li> <li>• Has knowledge of the psychological impact of the endocrine condition</li> <li>• Acknowledges when additional advice and support are required from the paediatric team and knows how to access relevant personnel</li> <li>• Adheres to all relevant policies, protocols and shared care guidelines</li> <li>• Supports the patient and family by listening to their concerns, offering access to further support as needed</li> <li>• Accurately documents and communicates with members of the wider team</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates understanding of how endocrine conditions change during adolescence</li> <li>• Demonstrates an understanding of how the stages of pubertal development can affect the preparation for dynamic tests and interpretation of results<sup>a</sup></li> <li>• Is able to explain the management of endocrine conditions in ways relevant to transition patients and their families<sup>b,c,d,e,f,g,h</sup></li> <li>• Develops a collaborative working relationship with the paediatric endocrine team</li> <li>• Incorporates research and evidence-based practice into clinical service</li> <li>• Recognises condition-specific psychological issues and provides support to patient and family</li> <li>• Acts as a role model for junior staff</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates the ability to co-ordinate clinical care during the transition phase</li> <li>• Identifies service shortfalls and undertakes necessary development of the service and its care pathways</li> <li>• Utilises advanced communication skills to develop educational strategies that engage and empower young people in the management of their health and well-being</li> <li>• Takes responsibility for integration of national and local policies</li> <li>• Develops advanced practice through leadership and consultancy</li> <li>• Supports, teaches and assesses junior staff</li> </ul>

<sup>a</sup>Endocrine dynamic function testing competency.

<sup>b</sup>Growth hormone deficiency competency.

<sup>c</sup>Hypogonadism competency.

<sup>d</sup>Hypopituitarism competency.

<sup>e</sup>Thyroid disease competency.

<sup>f</sup>Steroid replacement therapy for disorders of the pituitary and adrenal glands competency.

<sup>g</sup>Cushing's syndrome competency.

<sup>h</sup>Polycystic ovary syndrome (PCOS).





## Sources

The primary source for this document is *Competences: an integrated career and competency framework for children's endocrine nurse specialists* (11).

### Author contribution statement

V Kieffer, K Davies, C Gibson, M Middleton, J Munday, S Shalet, L Shepherd and P Yeoh all contributed equally to this work.

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### Review

A review will take place 3 years after the date of publication.

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