

# Analytical toxicology

Analytical toxicology staff work in laboratories to detect, identify and measure drugs and other potentially harmful chemicals in body fluids for the diagnosis, treatment and prevention of poisoning.

Your main role in an analytical toxicology laboratory is to diagnose poisoning. You could be diagnosing a range of poisonings from a drug overdose to lead poisoning following contamination of a water supply.

healthcare-science-female-on-computers

Your main role is to diagnose poisoning

## Overview

Some diagnostic tests can be performed quickly, especially if the symptoms or signs show the cause of poisoning. In other cases, you may need to search for a wide range of poisons and other substances using specialised equipment to be able to make a diagnosis.

As a scientist in analytical toxicology, you'll also provide an advisory service for a range of healthcare professionals, the police and coroners.

## Working Life

You could work for an NHS hospital trust or other NHS organisations. There are also opportunities with [Public Health England](#) <sup>[1]</sup>. You'll work as part of a team including other healthcare science staff, physicians and nurses.

Typical work may include:

- complex analysis of patient specimens, including bodily fluids, using a wide range of techniques
- ensuring that clinical investigations meet quality standards
- auditing the diagnostic and clinical use and performance of investigations
- developing new tests or modifying existing tests to allow for newly introduced drugs or other compounds
- liaising with clinical and other healthcare staff, often in a multidisciplinary team setting

- writing detailed reports that may be required by the justice system
- submitting funding bids and conducting research in collaboration with clinicians and other healthcare professionals.

## Want to learn more?

- [Find out more about the entry requirements, skills and interests required to enter a career in analytical toxicology](#) <sup>[2]</sup>
- [Find out more about the training you'll receive for a career in analytical toxicology](#) <sup>[3]</sup>

## • Pay and conditions

Most jobs in the NHS are covered by the [Agenda for Change \(AfC\)](#) <sup>[4]</sup> pay system. This pay system covers all staff (including healthcare science staff) except doctors, dentists and the most senior managers. Healthcare science staff in analytical toxicology in the NHS will typically be on [AfC](#) <sup>[5]</sup> bands 6 – 9, depending on their precise role and level of responsibility.

Healthcare science staff in analytical toxicology will usually work a standard 37.5 hours per week. They may work a shift pattern. Terms and conditions can vary for employers outside the NHS.

## • Where the role can lead

Healthcare science staff working as clinical scientists can apply for [Higher Specialist Scientist Training \(HSST\)](#) <sup>[6]</sup> leading to consultant status. Other opportunities within analytical toxicology include clinical academia, specialist research and management.

Healthcare scientists often lead research and innovation, in support of the best possible patient care. In analytical toxicology, you're involved in research such as developing methods to detect and identify novel drugs of abuse.

## • Job market and vacancies

### Labour market

In November 2018, there were 6,123 clinical scientists registered with the [Health and Care Professions Council](#) <sup>[7]</sup>

There is fierce competition for places on the [NHS Scientist Training Programme \(STP\)](#) <sup>[8]</sup> and [Higher Specialist Scientist Training \(HSST\)](#) <sup>[6]</sup>

## Finding and applying for jobs

When you're looking for job or apprenticeship vacancies, there are a number of sources you can use, depending on the type of work you're seeking.

Check vacancies carefully to be sure you can meet the requirements of the person specification before applying and to find out what the application process is. You may need to apply online or send a CV for example.

The [NHS Scientist Training Programme \(STP\)](#) <sup>[9]</sup> and [Higher Specialist Scientist Training \(HSST\)](#) <sup>[10]</sup> attract many more applicants than there are places and so there is considerable competition for places.

For the [NHS STP](#) <sup>[11]</sup> and [HSST](#) <sup>[12]</sup> there is an annual recruitment cycle.

Applications for the [STP](#) <sup>[11]</sup> and [HSST](#) <sup>[12]</sup> should be made through the [National School for Healthcare Science website](#) <sup>[13]</sup>, where you can also find information about the programme and the recruitment process.

Key sources relevant to vacancies in the health sector:

- Vacancies in organisations delivering NHS healthcare (including some vacancies with Public Health England) can be found on the [NHS Jobs website](#) <sup>[14]</sup>
- Opportunities in the Civil Service (including some vacancies with Public Health England) can be found on the [Civil Service Jobs website](#) <sup>[15]</sup>
- Vacancies in local government can be found on the [Local Government Jobs website](#) and the [Jobs Go Public website](#) <sup>[16]</sup>

As well as these sources, you may find suitable vacancies in the health sector by contacting local employers directly, searching in local newspapers and by using the [Universal Jobmatch tool](#) <sup>[17]</sup>.

[Find out more about applications and interviews](#) <sup>[18]</sup>.

Volunteering is an excellent way of gaining experience (especially if you don't have enough for a specific paid job you're interested in) and also seeing whether you're suited to a particular type of work. It's also a great way to boost your confidence and you can give something back to the community!

[Find out more about volunteering and gaining experience](#) <sup>[19]</sup>.

## • Further information

For more information about working and training in analytical toxicology, contact:

- [Academy for Healthcare Science \(AHCS\)](#) <sup>[20]</sup>
- [Association of Clinical Pathologists](#) <sup>[21]</sup>
- [Health and Care Professions Council](#) <sup>[22]</sup>
- [National School for Healthcare Science](#) <sup>[13]</sup>

- The Royal College of Pathologists [23]

## Other roles that may interest you

- Clinical immunology [24]
- Microbiology (healthcare scientist) [25]
- Virology (healthcare scientist) [26]
- Knowledge and library services [27]

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### Links

[1] <https://www.gov.uk/government/organisations/public-health-england> [2] <https://www.healthcareers.nhs.uk/explore-roles/life-sciences/analytical-toxicology/entry-requirements-skills-and-interests> [3] <https://www.healthcareers.nhs.uk/explore-roles/life-sciences/analytical-toxicology/training-development-and-registration> [4] <https://www.healthcareers.nhs.uk/about/careers-nhs/nhs-pay-and-benefits/agenda-change-pay-rates> [5] <https://www.healthcareers.nhs.uk/glossary#AfC> [6] <https://www.healthcareers.nhs.uk/i-am/working-health/nhs-higher-specialist-scientific-training> [7] <http://www.hcpc-uk.org> [8] <https://www.healthcareers.nhs.uk/i-am/considering-or-university/not-studying-health-related-degree/nhs-scientist-training-programme> [9] <https://www.healthcareers.nhs.uk/i-am/going-university/not-studying-health-related-degree/nhs-scientist-training-programme> [10] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/nhs-higher-specialist-scientific-training> [11] <https://www.healthcareers.nhs.uk/glossary#STP> [12] <https://www.healthcareers.nhs.uk/glossary#HSST> [13] <http://www.nshcs.hee.nhs.uk/> [14] <http://www.jobs.nhs.uk> [15] <https://www.civilservicejobs.service.gov.uk/csr/index.cgi> [16] <http://www.jobsgopublic.com/> [17] <https://www.gov.uk/jobsearch> [18] <https://www.healthcareers.nhs.uk/career-planning/planning-your-career/applications-and-interviews> [19] <https://www.healthcareers.nhs.uk/i-am/secondary-school-or-fe-college/gaining-experience> [20] <http://www.ahcs.ac.uk> [21] <http://www.pathologists.org.uk/> [22] <http://www.hcpc-uk.org/> [23] <http://www.rcpath.org> [24] <https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/life-sciences/clinical-immunology> [25] <https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/life-sciences/microbiology> [26] <https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/life-sciences/virology-healthcare-scientist> [27] <https://www.healthcareers.nhs.uk/explore-roles/health-informatics/roles-health-informatics/knowledge-and-library-services>