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Continuing Professional Development

Realising your potential

Guidance Notes for
the Direct Award of Chartered Chemist

**PLEASE NOTE:**

These notes are intended for Members (MRSC) or Fellows (FRSC) with greater than ten years of appropriate professional experience who wish to apply for the Direct Award of Chartered Chemist (CChem) without having to complete the two year Professional Development Programme (PDP).

It should be noted that reference to requisite numbers of years in this document relates to full time employment. Where employment is not full time, an appropriate extended period of experience will be required. More details are available from the Applications Officer.

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1.0 Introduction

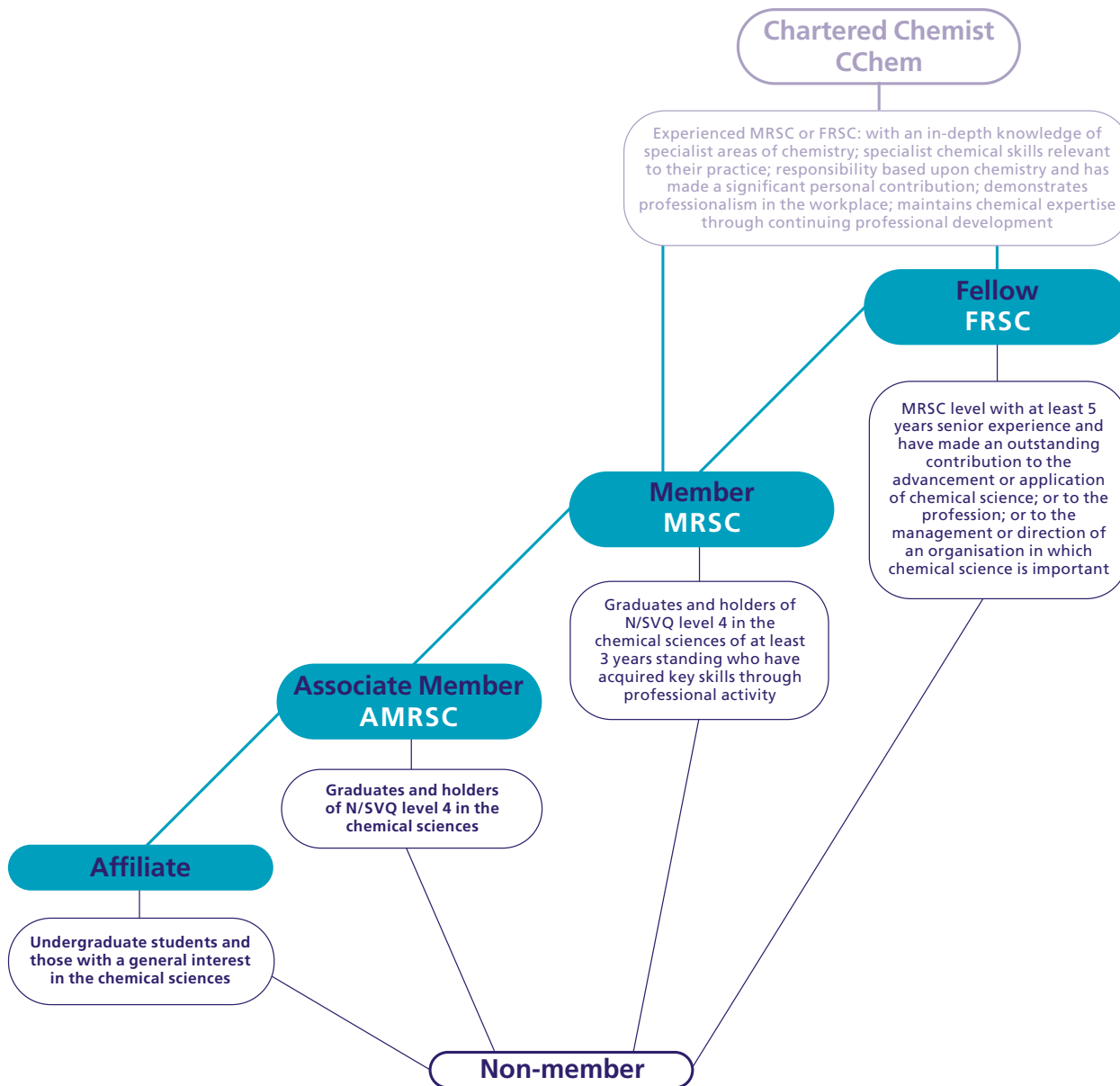
Achieving chartered status in any profession denotes to the wider community a high level of specialised subject knowledge and professional competence. The award of the Chartered Chemist (CChem) recognises the experienced practising chemist who has demonstrated an in-depth knowledge of chemistry, significant personal achievements based upon chemistry, professionalism in the workplace and a commitment to maintaining technical expertise through continuing professional development (CPD).

The award of CChem is considered separately from admission to a category of membership. The route to CChem is illustrated in figure. Affiliates, who are studying for an accredited degree, are able to apply for admission to Associate Member (AMRSC) upon graduation. During a subsequent period of at least three years, an Associate Member is expected to develop appropriate key skills through professional experience and hence progress to Member (MRSC). Those with substantial career progression together with evidence of seniority and maturity of experience can further progress to Fellow (FRSC).

At any time after admission to MRSC or FRSC, suitably qualified members can seek the award of CChem. In doing so they need to provide additional evidence to the RSC of appropriate learning and professional competence in chemistry, i.e. satisfy both the academic and professional requirements of the award. Full details of the RSC's *Regulations for the Award of CChem* can be found in appendix 1.

It should be noted that the illustrated route to CChem represents merely a "standard" route. Suitably qualified and experienced candidates are able to enter membership at any appropriate point.

Figure 1 - Route to Chartered Chemist



1.1 Academic requirements for CChem

The RSC accredits degree courses in chemistry of a high standard, the successful completion of which satisfies fully the academic requirements of the award of CChem.

All those admitted to the category of Graduate of the Royal Society of Chemistry (GRSC) before 1st August 2001 are also regarded as satisfying the academic requirements for CChem.

Members or Fellows who do not possess an accredited degree are able to apply for the award of CChem so long as they can demonstrate that they have developed an in-depth knowledge and critical awareness of a substantial area of chemistry (refer to CChem Regulation CC3, Appendix 1). This development can be via a course of study and/or experiential learning.

Those intending to apply for the Direct Award of CChem can receive advice on the suitability of their qualification(s) and/or experience in chemistry by contacting the Qualifications Officer at RSC, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF; Tel: +44 (0) 1223 432326; fax: +44 (0) 1223 432133; email memapp@rsc.org.

1.2 Professional requirements

Candidates for CChem normally satisfy the professional requirements by successfully completing the Professional Development Programme (PDP). This is typically of two years duration, during which time the Candidate collects evidence to demonstrate competence in twelve specific professional attributes. Additionally the Candidate is required to demonstrate that the chemical knowledge and skills derived from their education and training are critical to fulfilling the requirements of their job.

Candidates with substantial professional experience over at least ten years, and who believe that they have already achieved a suitable level of professional development may apply for the Direct Award of CChem without registering for the Professional Development Programme (refer to CChem Regulation CC5, Appendix 1). Appropriate professional experience is that which has been undertaken in the practice, application or teaching of chemistry since graduating with an accredited degree or reaching an equivalent level of academic attainment.

Potential Candidates for the Direct Award should note that they are required to provide evidence and demonstrate competence in the same way as those following the PDP. The major difference is that Direct Award Candidates are able to relate their application to retrospective experience. However, no item of evidence provided for CChem assessment should be more than two years old.

2.0 What does CChem signify?

A Chartered Chemist is:

someone who is making a significant impact in their professional role drawing upon highly developed chemical skills.

The award of CChem is not a recognition of “long service”. It is not granted in cases where an individual’s involvement or academic achievement is not at an appropriate level or is not in chemistry.

To be awarded the CChem, the Candidate is expected to provide evidence to show that he/she:

- **has developed professional competence involving the application of chemistry across a variety of contexts, the outcomes of which may be unpredictable;**
- **exercises substantial personal autonomy and is accountable for critical analysis and diagnosis, design, planning, execution and evaluation;**
- **has significant influence on the work of others;**
- **observes health and safety requirements relevant to the job and pays due regard to personal safety and the safety of others.**

The criteria for the award of CChem are that RSC members must:

- be MRSC or FRSC;
- hold an RSC accredited degree or equivalent;
- demonstrate that the chemical knowledge and skills derived from their education and training are critical to fulfilling the requirements of their job;
- demonstrate development of twelve professional attributes.

2.1 Professional attributes

The twelve professional attributes against which a Candidate's performance is judged are:

1. **Make significant personal contributions to key tasks in your employment area and understand fully the chemistry objectives of the work done and its relevance to the employer or others.**
2. **Demonstrate a high level of appropriate professional skills in the practice of chemistry.**
3. **Develop your chemistry and other professional skills as required for the work undertaken and career development.**
4. **Demonstrate an understanding and appreciation of Health, Safety and Environmental issues and adhere to the relevant requirements relating to your role.**
5. **Evaluate critically and draw conclusions from scientific and other data.**
6. **Demonstrate integrity and respect for confidentiality on work and personal issues. Demonstrate other professional attributes such as thoroughness and reliability.**
7. **Plan and organise time systematically, demonstrate foresight in carrying out tasks, and offer suggestions for improvements to tasks/duties.**
8. **Demonstrate an interest in broader developments in chemical science and make a contribution to the profession of chemistry outside your direct work environment.**
9. **Write clear, concise and orderly documents and give clear oral presentations.**
10. **Discuss work convincingly and objectively with colleagues, customers and others. Respond constructively to, and acknowledge the value of, alternative views and hypotheses.**
11. **Demonstrate the ability to work as part of a team.**
12. **Exert effective influence.**

3.0 Registering for the Direct Award of CChem

There are two stages associated with achieving the Direct Award of CChem, the first of which is registration.

3.1 Requirements for registration

All Candidates wishing to attain a Direct Award of CChem must at the time of registration:

- be MRSC or FRSC
- hold an RSC accredited degree or equivalent
- have at least ten years professional experience in the practice, application or teaching of chemistry since graduating with an accredited degree or reaching an equivalent level of academic attainment.
- be in employment and in a position where they can demonstrate that the chemical knowledge and skills derived from their education and training is utilised, at an appropriate level, in the execution of their job.

The Candidate is also required to nominate a Mentor, who is expected to offer support and guidance in identifying appropriate professional development and on the collection of suitable evidence.

3.2 Identifying a suitable Mentor

It is critical that the Candidate selects an appropriate Mentor. The Mentor is likely to be the Candidate's immediate line manager or someone who is closely associated with the work of the Candidate. Ideally, the Mentor will be an experienced CChem. However, an important aspect is familiarity with recent day-to-day work and therefore the RSC will consider a suitable non-member as a Mentor in exceptional cases.

When first approaching a possible Mentor, Candidates should discuss fully the requirements of the submission process. Mentors should be aware of the RSC's expectations in this regard and the responsibility placed upon them (see Section 5.0 - Advice to Mentor). Both Candidate and Mentor must recognise the requirement for them to work closely to ensure that the submission is prepared correctly and that the outcome is meaningful.

3.3 How to register

The Candidate completes and submits the *Registration Form for the Award of CChem* with a fee of £50. The fee covers both the registration and assessment processes. It is refundable only if registration is declined.

The Registration Form requires the Candidate to provide full details of any post-graduate employment and/or studies completed since being admitted to Member (MRSC) or Fellow (FRSC). Particular emphasis should be given to the personal practice, application or teaching of chemistry within each post held. For the current post, a note of personal achievements and a **brief** outline of the employer's business should be provided. An organisation chart can assist.

Postgraduate mature students engaged in full time study are not eligible to register for the Direct Award of CChem.

The nominated Mentor needs to sign the Registration Form indicating willingness to act in this capacity.

Once the Registration Form is received by the RSC, a Candidate's details are reviewed by a Panel of senior Chartered Chemists who determine whether the registration requirements are fulfilled. The Panel ensures that the Candidate satisfies the academic requirements and the Mentor is suitable, reviews the professional experience to date to check that it is appropriate, and decides whether the current post is at a suitable level for a CChem.

When the Panel has agreed the registration, it is confirmed in writing. Once confirmation is received, the Candidate can start preparing for the reporting stage.

4.0 Preparation and submission of the Final Report

The Candidate is expected to complete fully the *Final Report Form for the Direct Award of CChem* and submit together with a portfolio of evidence. The Final Report focuses on professional achievements, approach and attitude towards work and work-related matters. The associated evidence constitutes an integral part of the submission as it substantiates information provided on the Form. It must be evident, from both the report and the evidence, that the Candidate has developed sufficiently each of the twelve professional attributes.

Submission can occur as soon as registration is confirmed. If the completed Final Report Form and portfolio of evidence has not been submitted after twelve months, registration will normally lapse with no fees refunded.

4.1 Collecting evidence

Since the submission will relate retrospectively to experience already gained, the Candidate will need to reflect upon recent achievements and professional development. Candidates who maintain CPD Records (RSC framework or company framework), in which they can record their work, for example, projects undertaken, key tasks achieved, ideas/proposals suggested, training courses, lectures and meetings attended, and any activities in chemistry outside the usual work environment, will find that they will assist.

As soon as possible after successful registration, the RSC advises that the Candidate and Mentor meet formally to discuss and identify recent historical evidence that can be used as part of the portfolio. Candidates are reminded that 'recent' in this context means no more than two years prior to the date of registration.

Candidates are advised to place all their evidence in a ring binder. This will form the portfolio. A mix of documents will probably need to be included, such as:

- records of work,
- documentary evidence collected to show competence,
- testimonial evidence from appropriate personnel.

Portfolios of evidence should not be unnecessarily extensive (1-4 pages of A4 per attribute). They must contain clear concise documentation that covers all twelve areas. **The portfolio should be less than 30 pages in total.** One piece of evidence can cover more than one professional attribute and should be cross-referenced, there is no need to include multiple copies. A summary of your CPD activities is likely to be an important part of your portfolio.

Examples of the type of evidence that is required are given in appendix 2. It should be noted that these examples are not exhaustive. In each case, the evidence will be expected to reflect the work that the Candidate undertakes.

In presenting evidence, any issues of confidentiality or sensitivity can be erased from an original document or, if more appropriate, a general overview of the area being evaluated can be submitted.

Each piece of evidence should be marked clearly in the top right hand corner with the number(s) of the Professional Attribute to which it relates.

The portfolio of evidence should be submitted to the RSC at the same time as submitting the Final Report. The portfolio will be returned once a decision on the award of CChem has been made.

Candidates are strongly advised to keep copies of originals of any key documents. The RSC cannot be held responsible for loss or damage of any submitted documents.

The Mentor is also required to sign off the information presented in the Final Report Form and make a recommendation regarding the award.

4.2 Nomination of referee(s)

For the final assessment, all Candidates are required to provide the name of a referee who is currently a Chartered Chemist. If the Mentor is not a Chartered Chemist then an additional referee, acceptable to the RSC, must be nominated. In all cases the referee is expected to have sufficient knowledge of the Candidate's work.

4.3 Completing the Final Report Form

The first three sections of the Form, on page 1, are for confirmation of the Candidate and Mentor's details.

Section 4 is provided for the Final Report and divided into several parts.

A summary of the evidence for CChem is presented in Part A. For each professional attribute the Candidate should indicate which piece of evidence refers. The Mentor is required to review the completed summary, together with the evidence, and sign off where appropriate with comments.

The Candidate and Mentor, in Parts B and C respectively, are asked to provide a short review of the Candidate's recent professional achievements, contribution and overall progress particularly within the past two years.

The Mentor must make a recommendation regarding the award of CChem in Part D. If the Mentor considers that CChem should not be awarded at this time, he/she is encouraged to recommend remedial action for progress, e.g. a period of further development. The Mentor's signature is required in this part of the form.

Part E provides an opportunity for the Candidate to comment on any aspect of the submission and on any remarks made by the Mentor. Mentors are asked to encourage Candidates to take this opportunity. The Candidate must sign this part of the form.

Lastly, in Section 5, the Candidate is required to provide details of the referee(s).

Once the Form has been fully completed and signed by both the Mentor and the Candidate, it should be sent together with the portfolio of evidence to the RSC by recorded delivery. Candidates are reminded to keep copies of all items submitted.

When the form is received by the RSC, the nominated referee(s) will be contacted. Having received the referee's comments, the evidence, report and references are considered by the RSC's Awarding Committee. The Committee's decision will be communicated in writing.

5.0 Advice to the Mentor

The Mentor plays a critical role in the CChem awarding process. It is expected that Chartered Chemists will wish to assist their colleagues in achieving CChem or, in the case of non-member Mentors, that they would like to see colleagues gain a professional qualification. By progressing towards CChem in a manner which demonstrates clearly that professional attributes are an integral part of the assessment, the standing of the award will be enhanced.

The RSC recognises that it is adding to the workload of a busy person in asking him/her to act as a Mentor for a member seeking to become CChem. The RSC would, therefore like to extend its thanks in advance for the advice, guidance and report writing that will be required.

The Mentor should be aware of the Candidate's strengths and weaknesses and be in a position to offer help and guidance to him/her. Consequently the Mentor should be either the Candidate's Line Manager or be associated with the work of the Candidate. An important aspect is familiarity with the recent day-to-day work of the Candidate

The Mentor should be prepared to review the Candidate's work and to advise on ways in which achievement of the attributes listed in Section 2.1 can be demonstrated. Guidance and support is also needed if any problems arise. Additionally, the Mentor may need to be aware of any other external activities, e.g. involvement in RSC or other activities outside the day-to-day work environment.

The Mentor should complete, in full, the relevant sections of the Final Report Form. It is requested that Mentors pay particular attention to the completion of the summary of evidence section. The RSC requires substantiated evidence on how the Candidate's work demonstrates achievement of the attributes. Simple confirmation is not acceptable.

Poorly completed submissions will need to be returned thereby delaying consideration of the Candidate's application for award of CChem.

The recommendation from the Mentor, as to whether or not CChem status should be granted, is vital. Should a Mentor consider that the award is not merited, for whatever reason, this is the point at which such a comment should be made on the form.

If a Candidate is judged to have made insufficient progress, appropriate guidance and/or remedial action should be discussed and documented on the form. The Awarding Committee will then decide how the matter is to be progressed.

6.0 Summary

Responsibility for the successful preparation and submission rests ultimately with the Candidate. It is for him/her to:

- arrange for a suitable Mentor,
- organise appropriate meetings,
- seek advice,
- identify and collect evidence,
- complete the Final Report Form,
- keep the RSC informed of any unforeseen developments

The level of demand presented by this process is considered appropriate for a chemist who wishes to demonstrate to his/her peers, and to the wider community, a high level of specialised knowledge and professional competence.

APPENDIX 1

Regulations for the Award of Chartered Chemist

- CC1 All candidates for Chartered Chemist have to be a Member (MRSC) or Fellow (FRSC).
- CC2 Candidates are required to produce evidence of being awarded a RSC accredited degree at the standard of 1st or 2nd class honours and be engaged in the practice, application and/or teaching of chemistry.
- CC3 Candidates who cannot fulfil the academic requirements in CC2 above must demonstrate that they have an in depth knowledge and critical awareness of a substantial area of chemistry. This is usually demonstrated by achievement of a suitable postgraduate award and/or appropriate professional development. Council, at its discretion, may require candidates to attend a Professional Interview, or undertake other procedures, to determine the extent of the candidate's understanding of chemistry.
- CC4 All candidates are required to present evidence of professional attributes in a range of specific areas to a level prescribed by Council. This is accomplished by means of a two year Professional Development Programme (PDP). Candidates must register with the RSC at the beginning of the Programme. They are also, at the time of registration, required to nominate a mentor who is able to provide guidance in developing the attributes and to verify the evidence provided.
- CC5 Candidates with substantial professional experience over at least ten years, and who believe that they have already achieved the level of professional attributes prescribed by Council, may apply for the Direct Award of Chartered Chemist without registering for the 2 year Professional Development Programme. In collating their submission, such candidates are required to identify a mentor who is able to assist with the collection of information and to verify the evidence provided.
- CC6 For the final assessment, all candidates are required to provide the name of a referee who is currently a Chartered Chemist. If, however, the agreed mentor is not a Chartered Chemist, two referees will be required, one of whom should be a Chartered Chemist and another who should preferably be a scientist or engineer chartered by their own professional society or institution that is acceptable to the RSC. In all cases the referee is expected to have sufficient knowledge of the candidate's work.
- CC7 Chartered Chemists are entitled to use the abbreviation "CChem" after their names.

APPENDIX 2

Further guidance on evidence for the twelve Professional Attributes

The twelve professional attributes previously listed in Section 2.1 are presented below with examples of the type of information that can be used as evidence. The examples are presented for illustrative purposes and do not represent an exhaustive list.

1. Make significant personal contributions to key tasks in your employment area and understand fully the chemistry objectives of the work done and its relevance to the employer or others

Evidence: *relevant section from current job description and written examples of contributions to key tasks*

2. Demonstrate a high level of appropriate professional skills in the practice of chemistry.

Evidence: *examples of the type of work undertaken in the workplace, which highlight the skills.*

3. Develop your chemistry and other professional skills as required for the work undertaken and career development.

Evidence: *analysis of needs and evidence of fulfilment in the form of a CPD summary. This may include training courses, attendance at professional meetings and published work. (A record book for CPD is available from the RSC). In addition to any work place based CPD this may also include activity within RSC subject groups, attendance at conferences etc.*

4. Demonstrate an understanding and appreciation of Health, Safety and Environmental issues and adhere to the relevant requirements relating to your role.

Evidence: *could include any records of training and achievement and a summary of Health, Safety and Environmental responsibilities. Examples of how implementation of HSE policies has been achieved should be provided by testimonial.*

Other evidence could include:

Preparation and interpretation of COSHH documents.

Member of Safety Inspection Team signing permits to work.

Reviewing Hazardous Area Classifications.

Writing emergency procedures for shutdown, evacuation, and recovery of a safe situation.

Specification of dust and fume control equipment and choice of emergency personal protective equipment.

5. Evaluate critically and draw conclusions from scientific and other data

Evidence: *examples of the type of level of decisions undertaken in the workplace.*

6. Demonstrate integrity and respect for confidentiality on work and personal issues. Demonstrate other professional attributes such as thoroughness and reliability

Evidence: *from annual appraisal, testimonial from a Mentor.*

7. Plan and organise time systematically, demonstrate foresight in carrying out tasks, and offer suggestions for improvements to tasks/duties

Evidence: *this may be from the workplace in the form of project planning or design or completion of tasks/projects, testimonial evidence.*

8. Demonstrate an interest in broader developments in chemical science and make a contribution to the profession of chemistry outside your direct work environment.

Evidence: *this may be demonstrated through the record of CPD (CPD record books are available from the RSC). Examples may be external or internal to the organisation in which you work, e.g. Internal briefing sessions, involvement in RSC Local Section activity or school/college/university involvement such as Chemistry at Work or presentations to external groups e.g. RSC Annual Conference – CIA Speak Out programme, Chemistry Week and Science Week activities, participation on committees of science related bodies talks to Young Farmers, Women's Institute etc.*

9. Write clear, concise and orderly documents and give clear oral presentations.

Evidence: *copies of documents prepared by the Candidate, examples of presentations and any feedback from audiences.*

10. Discuss work convincingly and objectively with colleagues, customers and others. Respond constructively to, and acknowledge the value of, alternative views and hypotheses.

Evidence: *examples of relevant reports/correspondence, or testimonial evidence.*

11. Demonstrate the ability to work as part of a team.

Evidence: *testimonial evidence.*

12. Exert effective influence.

Evidence: *testimonial evidence.*