

COMMENTARY - INVITED

A guide to creating a high-quality curriculum vitae

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INTRODUCTION

The curriculum vitae (CV) is nearly ubiquitous in academic medicine, often beginning prior to medical school and continually being refined throughout graduate and postgraduate training. The CV serves as a formal record of your experiences and accomplishments, which can help others to better understand what you have done thus far and your potential qualifications for a position or promotion.¹ An academic CV differs from a resume, in that the latter is much more condensed (typically 1–2 pages) and focuses more on specific skills and qualifications, rather than cataloguing your full academic history.

A well-crafted CV is important throughout an academic career. A CV is not a static document and can be formatted to serve a variety of needs. One of the most common uses of a CV is to apply for a new job or leadership position. Most chairs and hiring committees will expect a CV and cover letter as the initial component of the application materials. Additionally, the CV is utilized as one of the primary criteria as part of the dossier used for making decisions about promotion and tenure (P&T). We wish to emphasize that the CV should not be the sole criterion for a position or advancement and that it is important to engage in holistic review of applications²; however, the CV is one important component of this process. In addition to the above, a CV is important personally for considering and reevaluating your niche and career path. It can serve as a tool for you and your mentor to discuss your interests and current progress and identify areas for future growth. Finally, the CV serves as a record of your personal progress and achievements and can be invaluable in crafting your personal statement for academic advancement. It can also be a valuable tool to help boost morale and combat imposter syndrome.³

Despite the important role that a CV plays in career and academic advancement, we have seen wide variations in the quality, format, and structure of CVs. Building upon a recent CV workshop at the Society for Academic Emergency Medicine Scientific Assembly, we sought to share our experience and insights to help guide resident and attending physicians when embarking on creating or refining their CV.

COMPONENTS OF A CV

While the exact naming conventions and order may vary by institution, we will review the most common components of a CV and provide tangible recommendations for each component. In general, a CV should have a consistent and legible font, appropriate spacing and use of line breaks, bolding to highlight key components or headers, and the dates should be listed in a consistent order (either chronological or reverse chronological). A sample CV is included here as Appendix S1.

The first page should include your name and degrees at the top. We recommend that your name be written in a larger font and bolded. This allows your name to stand out and reduces the risk of your CV being accidentally confused with another person when there are multiple applicants. The top of the page should also include your contact information, such as your address, phone number, and email address. We generally recommend using your work address for privacy. However, if you are applying for a new job, you may want to consider using an email address that is more confidential, such as your personal email. A cell phone number, work number, or both could be included depending on your preferred contact number(s). Finally, the first page should include the date that the CV was last

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updated. This will assist you with tracking the versions, as well as the recipient if you send an updated CV later. All subsequent pages should include your italicized name at the top right as a header along with the page number on the bottom right as a footer. This can assist with ensuring that no pages are lost or reviewed out of order if the CV is printed.

The next section is your education. This begins in reverse chronological order with your postgraduate training (e.g., residency, fellowship), followed by graduate training (e.g., undergraduate institution, medical school, masters degree programs). When listing your undergraduate training, make sure to include the institution and dates attended, degree obtained, major(s), minor(s), and any honors (e.g., cum laude, distinctions, Alpha Omega Alpha). You should include any advanced leadership training that does not fall within the above categories (e.g., leadership courses, speaker courses) as a separate section located after the education section, which could be entitled "Additional Training" or "Faculty Development."

The next component of the CV should contain appointments, such as academic appointments and nonacademic or hospital appointments. For faculty, you should include your current and prior academic appointments along with the dates at each rank. This will be particularly valuable for P&T committees. You should also include all relevant employment. This can include your current role as well as prior clinical roles. These should include the title, department, institution, and date range. As a general rule, you should limit these to jobs most relevant to the current position and should routinely trim these back as you advance your career. For example, being a scribe in the emergency department would be relevant for medical students and residents but would no longer be relevant for a full professor. Some prefer to maintain selected early accomplishments, but these are individual decisions that warrant deliberate consideration. For those with prior careers outside medicine, consider keeping them in, particularly if they are directly relevant to the current role. As an example, if you are applying for a chair position, a history of being the chief financial officer of a company would be relevant regardless of the timing.

You should generally list all honors and awards that you have received along with the corresponding date. If an award is not readily apparent by the name, consider adding a brief description or annotation. As you move forward in your career, you may consider removing less relevant awards and honors, similar to positions as discussed in the preceding paragraph.

Certifications and licensure are important to include along with the dates active. However, you should avoid including information such as your DEA or medical license number unless explicitly required to reduce the risk of this being misappropriated. Additionally, you should include the societies to which you belong. While society memberships could be listed later (given the reduced impact compared with other aspects of your CV), we believe it is valuable to list early because it allows you to abbreviate societies with long names if used later in the CV (e.g., leadership positions, committee roles, invited lectures). However, this may depend on your institution's format.

You should also include a dedicated section on your leadership positions at your institution and within professional societies as well as any committee or task force membership roles within professional societies. While traditionally these are listed in order based on the dates of involvement, you could consider grouping these by organization to demonstrate dedication to a specific group. This can be particularly valuable if you are applying for a leadership role in one of those societies as well as for helping support the citizenship components of your P&T application. For some institutions, this may alternatively be listed in a "service" or "administrative leadership" category.

The teaching section should include your involvement with leading any local, regional, and national curricula. While not as comprehensive as an educator's portfolio,⁴ you should consider including sufficient information for the reader to understand the scope, size, and time commitment of the program. It is important to separate this curricular section (i.e., a set of courses) from the latter section on individual courses. You may also consider separating into undergraduate medical education (e.g., medical students), graduate medical education (e.g., residents, fellows), and other learners (e.g., paramedics, nursing). We recommend including the program title, your role, the number of learners, type of learners (specialty and experience level), frequency of the courses, length of the sessions, and dates that the program occurred. As you advance in your career, you may consider removing low-impact internal teaching activities.

The mentorship section should include any people you are or have been mentoring. When deciding who to include, consider whether you could readily describe the skills, knowledge, insights, or value you have provided to the mentee. This section should include their name, length of mentorship, current role (e.g., faculty role, fellow, resident, medical student), and institution as well as their prior role when you began mentoring them (if applicable). As not all institutional CV formats have a designated location for this, you could consider making this a separate appendix file.

The scientific and scholarly activities section (also known as the research section) can include a wide array of components. We recommend including any research-specific service roles (e.g., editor, reviewer for professional journals, reviewer for granting agencies) as well as scholarship (e.g., grant funding, abstract or poster presentations, peer-reviewed manuscripts, books, blog posts), in accordance with your institution's preferred format. We recommend that all publications be numbered and listed in chronological or reverse chronological order, depending on your institution's preference. Publications should be listed in a citation format consistent with your institutional guidelines, and you should consider adding the Digital Object Identifier (DOI) or PubMed identifier (PMID). When listing grant funding, you should include the funding source, amount, grant award name, date(s), and your role. You could also consider adding an annotation here to describe the importance of an item or your contribution to a grant or manuscript. For the research presentations, manuscripts, and book chapters, we recommend putting your name in bold and/or italics to help

your name stand out. You could also consider adding your research metrics here (e.g., h-index, i-10) to help demonstrate your scholarly impact.^{5,6}

Lectures, podcasts, and nonresearch presentations could be listed within either teaching or scholarship and we advise following your institutional guidelines.⁷ These should include the URL, link, or website and data on downloads if available. For individual lectures and didactic sessions, include the institution or professional group, date, location, number of attendees, contact hours (i.e., length of session), and topic. Consider separating this out into local lectures; grand rounds at outside institutions; and invited sessions at regional, national, or international conferences, with higher-impact (i.e., international or invited) presentations listed first.

Additional categories may be added and may include your fluency in another language or additional expertise (e.g., SPSS, RevMan). It is advisable to be honest when listing these, because they may be challenged. For example, if foreign language proficiency is indicated as “fluent,” it is possible that a prospective employer may wish to conduct the interview in that language. Some people also list a few extracurricular passions (e.g., sports, literature) that may serve to foster a connection with a potential interviewer.

Finally, your last page should include your references. Depending on the position, you could either list your references or add a comment “references available on request.” The latter component may be useful when you are applying for an external position. When including references, identify three references who can speak to your qualifications for a given position. This may include your department chair, mentors, those in similar roles that you are applying for, and those who are a direct supervisor to you. In many cases, your references may not be from your institution. Make sure that your references know they have been listed as a reference. You should include their role and current address, phone, and email to guide the reader when reaching out to them.

BEST PRACTICES FOR MANAGING YOUR CV

In this section, we describe recommended strategies to manage your CV (Table 1). Even though institutions often require the same information, each may have a specific format for organizing and/or building your CV. Some institutions furnish a guideline that includes the desired headings and order of the entries on the CV, while others provide an electronic fillable template. By adhering to the desired format for your institution and advancement track (e.g., research, clinician-educator, tenure), your P&T committee will be able to access all information easily to process academic advancement decisions. Since most formats include similar categories, you can send this version of your CV to prospective employers or other interested parties upon request. However, if you are seeking a new career or hope to delve into a niche within a particular academic realm, it may be useful to tailor your CV to highlight relevant aspects.

If you relocate to a new institution, it is prudent to update your CV to the new format as soon as possible. One strategy to ensure you are compliant with the correct CV format for your institution is to reach out to the people in your department who manage this area. It may also be helpful to ask a respected role model who has been successful in the same career track to share their CV as a real-world example.¹ In addition to simply seeing their formatted CV, it is a good chance to consider your own career aspirations and to identify a potential local mentor.

A busy academician who is working hard to advance in the appropriate career track may generate numerous additions to their CV in a short period of time. Waiting until the last minute during dossier preparation for an academic action may lead to omission of important details, such as collaborators, dates or locations of occurrence, and even the events themselves, so it is critical to develop a process that reliably captures all aspects of each accomplishment (e.g., lectures, awards, publications). There are many strategies, but the most important factor is to identify those that fit into your natural routine. Some examples include real-time entry as soon as an event

TABLE 1 Best practices for creating and managing the CV for career advancement

| Best practice | Process | Benefit |
|-------------------------|--|--|
| Use the correct format | Use institutional standard. | Ease of access by P&T committee. |
| Update frequently | Develop a routine. | Assures comprehensive inclusion of achievements. |
| Keep a working document | Keep an unpaginated CV accessible for real-time updates. | Allows easy entry of data without worrying about section/page breaks. |
| Create a shareable CV | Delete irrelevant categories. Keep sections together. Set up logical pagination. Save as PDF to access on demand. | Creates a visually pleasing, professional document with organized and relevant information. |
| Keep a track record | Save CV at the end of each year. Refer to CV history for dossier. Appreciate self-progress. | Provides accurate timestamps for interim accomplishments (personal statements). Highlights personal progress. |
| Seek feedback | Review CV with mentors and departmental P&T representative. | Facilitates compliance with norms. |

Abbreviations: CV, curriculum vitae; PDF, portable document format; P&T, promotion and tenure.

or accomplishment occurs, creating an email folder of items to add to your CV, scheduling a recurring calendar event weekly or monthly to update your master CV, or using a voice recorder or handwritten or electronic notes to add events in real time and transfer to the CV at planned intervals. You can also refer to your electronic calendar for details about prior sessions. It is also important to update the details on events that have already been entered as they become available, such as adding DOI, PMID, and publication details (e.g., volume, page numbers). To facilitate this, you could create a Google Scholar alert for your publications and citations.⁸ This will allow you to know when your publications are released in print or are assigned to an electronic issue and provide citation metrics as described above.

Some people keep an easily accessible file on their desktop that links to an unpaginated *working document* of their CV that uses accurate spelling, punctuation, grammar, headings, bold typeface, underlines, logical hyphenations, margins, fonts, alignment, and indentations as they should appear in the final formatted CV (Table 2). This can facilitate real-time updating without the need to reformat the pages after every entry. Another option is to create a table without borders under each section heading with the necessary columns and subheadings. This can be an efficient way to easily add items as a new row with consistent formatting and pacing. When it is time to send your CV to a prospective employer, a professional organization, or your P&T committee, you should present your CV in a visually pleasing, well-organized manner. This includes formatting page breaks to avoid having items split across pages, including boldface type and/or capitalization for section headers, ensuring consistent alignment, and eliminating spelling and grammatical errors. This will also allow you to add or remove specific components to best meet the objectives for this particular CV.

When updating your CV, we recommend opening the working document and saving each revision as a new file with the updated date listed (e.g., Gottlieb CV [10-5-21]). This prevents inadvertent changes to the working document and allows for final formatting

prior to dissemination. We recommend saving this as both a PDF and an editable Word document. The PDF can be sent to others to ensure that the formatting is not altered when opened on the recipient's computer.

SPECIAL CONSIDERATIONS: RESUMES, COVER LETTERS, AND THE EXECUTIVE SUMMARY

It is important to delineate the difference between a CV and a resume. A CV is generally expected for people applying for academic positions, whereas a resume is more commonly requested for other professional positions that are nonacademic or non-research oriented (Table 3).

CVs generally include a comprehensive (exhaustive) list of positions you have held, honors and awards you received, and activities you have participated in up to current time. In fact, curriculum vitae is Latin for “course of (one’s) life.” As defined by the Merriam-Webster dictionary, a resume is a short account of one’s career and qualifications.⁹ A resume is concise and much shorter than a CV, typically being no longer than two pages in length. The goal of a resume is to highlight your unique attributes, skills, and accomplishments and align them with your career goal to open the door for an interview. It does not contain all the items that are listed chronologically in a CV.¹⁰ Listing a career goal that is in line with the position you are applying for is common practice when preparing a resume. The career goal is generally explicitly stated on the first line of the document under your name and contact information. Research is generally not included in a resume unless it is explicitly required for the position you are seeking. References are also commonly omitted on a resume.

Regardless of whether you are submitting a CV or resume for a job you are seeking, you should prepare a cover letter to introduce

| | |
|--|---|
| Remove unnecessary sections | Delete blank sections of templated CV, such as “grants received” if there are none. An exception is if this is a required field that is designated by the entity requesting the CV. In this case, add “N/A.” |
| Use page breaks to keep items together | Avoid splitting items across pages. Use page breaks to move the item or section to the next page so the entire section appears as a cohesive unit. It is acceptable to have some extra space at the bottom of a page to accomplish this step. |
| Update references and publications | Update references (if included) to assure that the correct individuals are listed with current contact information. Also update publications with DOI, PMID, and journal issue information. |
| Perform a final review | Review the spelling, grammar, page/line breaks, and content to ensure that it is ready to be distributed. |
| Convert to a PDF | Convert the working word processing document file to a PDF for dissemination. This will ensure that it is received in the desired formatting and prevent alterations. |

TABLE 2 Strategies for converting your working document into the finalized CV

TABLE 3 Comparison of a CV versus resume

| | CV | Resume |
|----------------------------------|---|---|
| Target organization | Academic medical center, university, or professional organization | Clinical or industry position not involving teaching or research |
| Goal | Present a detailed list of your academic credentials—training, teaching experience, research (including grants), publications, honors/awards, and service | Highlight unique attributes, skills, and accomplishments. Does not need to be exhaustive. |
| Length | Variable depending on experience | No more than 2 pages |
| Publications | List all publications | Only include if relevant to the position |
| Honors, awards, and affiliations | Include all honors, awards, and affiliations | Curtail listing of honors, awards, and affiliations and consider omitting |
| References | May include | Do not include |

Note: Adapted from the Princeton University Center for Career Development Guide.¹¹

Abbreviation: CV, curriculum vitae.

yourself and your interest in the position. If there is something that specifically attracted you to the position or the area, this is the place to include that information. If there is a specific area of expertise asked for in an advertisement or mentioned by a recruiter be sure to address it in your cover letter. It is important to address your cover letter to the individual who will be making the decision on who will be invited to interview or possibly a search committee chair or recruiter. The cover letter is an important tool to persuade the reader through a personalized message that you are the right person for the job, though it should not simply be a rehash of your resume or CV. The cover letter should be brief, no more than one page in length. In general, you will need to craft a separate cover letter for each application.

For those individuals with longer CVs, you may want to consider preparing a one- to two-page high-level executive summary of your key work experiences, personal qualities, and skills you possess that will set you up for success in the position you are pursuing. An executive summary is placed at the top of your document to help the employer zero in on key aspects of your candidacy. It should be direct and focused on the key components you wish to highlight. Think of it as an abstract or teaser of what can be found in more detail in your CV. An executive summary should showcase your best attributes up front.

CONCLUSION

Curricula vitae are important for a variety of uses, including applying for new leadership and employment positions, seeking academic advancement through promotion and tenure, and reevaluating your niche. This article highlights the key features of a curriculum vitae, recommendations for creating and maintaining a curriculum vitae, and key differences from a resume. We hope this provides a valuable guide for those at any career stage who are seeking to enhance the quality of their curriculum vitae.

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