

**An Assessment of the  
Impacts of the Practice Review  
Ontario College of Pharmacists**

May, 2004

**Submitted to:**



**ONTARIO COLLEGE OF PHARMACISTS**

483 Huron Street  
Toronto, Ontario  
M5R 2R4  
(416) 962-4861  
1-800-220-1921

**Submitted by:**

**HCA**

**HARRY CUMMINGS AND ASSOCIATES**  
96 Kathleen Street, Guelph, ON N1H 4Y3  
Phone: 519-823-1647 Fax: 519-821-0202  
Email [hca@web.ca](mailto:hca@web.ca)  
website [www.hcaconsulting.ca](http://www.hcaconsulting.ca)



## Executive Summary

This report prepared by Harry Cummings and Associates Inc. (HCA) for the Ontario College of Pharmacists (OCP) describes the Impact of the Practise Review Program. It is the first of a number of evaluations the OCP is commissioning of its Quality Assurance Program (QAP). These evaluations are being done after more than 5 years of formal implementation of the program as part of the requirements of the Regulated Health Protections Act. The surveys carried out for this evaluation were done in the fall of 2003 and this report was prepared in the period from January to April of 2004.

With the introduction of the Regulated Health Professions Act (RHPA) in 1993, the OCP began developing a Quality Assurance Program, which is designed to help ensure the competency of all members. The QAP for OCP now consists of the following elements: Learning Portfolio, Self Assessment Survey, Practice Review and Professional Development. The Quality Assurance Regulations for OCP also refer to two other QA components: a two-part register for pharmacists, remediation and behaviour and remarks of a sexual nature as part of the QAP.

The major work reported on here included a telephone survey of 136 pharmacists who completed the Practise Review (PR) in 2002, 67 who completed the PR in 1997/98 and 322 who completed the Self Assessment (SA) in 2002 but did not complete the PR. In the research design, the SA group serves as a comparison group to the to PR groups. The choice of the 97/98 PR group allowed us to look at impacts after 5 years and the PR 2002 group allowed us to see recent impacts. The report builds on initial work done by HCA in focus groups and interviews with pharmacists on the Impact of the Practise Review and reported on elsewhere. (HCA, 2003).

The results show that the Quality Assurance Program in general and the PR in particular are having a positive impact.

The questionnaires were designed to examine the impact of the PR on; 1) knowledge acquisition approaches of pharmacists, on 2) attitude of pharmacists towards patients, on 3) the practise of pharmacists and on 4) Quality Assurance as a whole.

***It should be noted that the area of changes in practice is the one most closely associated with the main question of impact of the PR.***



## Section 1

Some key results for the pharmacists who took the PR in 2002. The PR influenced pharmacists in the following way:

### **Knowledge Improvement Activities, PR2002.**(KIA) Pharmacists :

- were encouraged to reflect on their practise focus (72.1%)<sup>1</sup>
- were encouraged to believe in lifelong learning (68.4%)
- identified gaps in their general knowledge (65.7%)
- made a conscious effort to update their learning portfolio (65.0%)
- increased attendance at continuing education activities (32.8%)

In the area of KIA, the PR2002 group was more likely to agree than disagree with 13 out of 15 statements in the questionnaire.

### **Attitude and Approach to Patients, PR2002.** Pharmacists agreed that they:

- increased their awareness of the importance of communicating with patients (81.6%)
- improved their overall communication with patients (63.2%)
- validated their pharmacy practice (70.6%)

In the area of attitude and approach to patients, the PR2002 participants agreed more than they disagreed with all 5 statements on the questionnaire.

### **Changes in Pharmacy Practice, PR2002.** Pharmacists agreed that they:

- identified areas of strength in their practice (74.3%)
- were encouraged to seek ways to improve patient care (64.0%)
- reported the PR helped to identify weaknesses (67.4%)
- increased communication with health care providers (34.6%)
- reported that the existence of the PR motivated them to improve their practice (57.6%)

In the area of changes in practice, pharmacists who took the PR2002 agreed more than they disagreed with 8 out of 10 statements.

Finally, pharmacists who took the PR in 2002 were asked to comment on their perceptions of the QAP as a whole.

### **Quality Assurance as a Whole, PR2002.** Pharmacists agreed that they:

- believe quality assurance as a whole is positive for the profession (91.9%)
- believe QAP contributed to improved communication skills for pharmacists (78.5%)

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<sup>1</sup> The percentages refer to those pharmacists who agreed or strongly agreed with the statements unless otherwise indicated.



- believe that the QAP contributes to pharmacists being more responsible to the public (77.8%)

Pharmacists strongly agreed with all statements in this area of the questionnaire.

A number of the key outcome variables in each of the sections of the questionnaire were correlated with selected variables reflecting the profile/characteristics of pharmacists who had answered the questionnaire. The profile variables selected included age, years of practice, type of pharmacy practise (retail, institutional), place of education (Canadian trained, other) and position in pharmacy (staff, manager/owner). The correlations were done initially using Pearson's correlation coefficient and subsequently using stepwise multiple regressions.

In the PR2002 group, it was found that pharmacists educated outside of Canada were more likely than others to feel that the PR had influenced them to attend more workshops, conferences and seminars. In the section of questions on attitude/approach towards patients, pharmacists who work in hospital/long term care facilities were more likely than others to feel the PR improved their approach to patients. Similarly, in the next section of the questionnaire on changes in practice, we found that pharmacists who worked in hospital long term care facilities were more likely to have identified strengths in their practice as a result of the PR.

When all profile variables were used together in multiple regression to measure their influence on outcomes we found that in the KIA, country of graduation was the only useful explanatory profile variable, with foreign trained specialists experiencing a greater impact on their workshop and seminar activities as a result of the PR. Country of graduation also proved to be the only significant explanatory variable influencing overall communication with patients

A variety of qualitative statements were also given to HCA interviewers during the survey. These have been recorded and analyzed in the report. They show that many of the PR2002 group, who indicated that the PR had little influence, said this because they were already doing good things and did not need the PR to remind them. Many of the negative comments made related to the stress caused by the intensive daylong exam. It was suggested that waiting for the exam was the worst part of the PR. There were also critical comments about exam content and the examination process. Open positive support for the PR came in comments about the importance of QA and continuing improvement in the pharmacy profession. People also referred to the changes in practice and communications with patients and the learning that had occurred as a result of the PR. There was balance between the negative and positive qualitative comments in most sections, except for the comments on changes in practice as a result of PR where positive outweighed negative six to one.



In summary, for the PR 2002 group the PR is a positive experience. Quantitative scaled responses show this and the positive comments provided (balanced with negative) also reflects this. Hospital/long term care based and foreign trained pharmacists felt a greater impact from the PR than others. The PR2002 group also felt very positive about QA as a whole.

## Section 2

Some key results for the pharmacists who took the PR in 1997/98 are as follows: The PR influenced pharmacists in the following way:

**Knowledge Improvement Activities, PR97/98.** (KIA) Pharmacists agreed that:

- I have realized that lifelong learning is important (74.7%)
- identified gaps in their general knowledge (62.7%)
- made a conscious effort to update their learning portfolio (67.2%)
- the PR encouraged me to apply my knowledge to patient practice (55.2%)
- they increased attendance at continuing education activities (35.8%)

In the area of KIA, the PR97/98 group was more likely to agree than disagree with 8 out of 11 statements in the questionnaire. The areas of disagreement were strongest in respect to the role of PR in promoting increased Ontario Pharmacy Association activity, attending more workshops, and pursuing certification in areas of special interest.

**Attitude and Approach to Patients, PR97/98.** Pharmacists agreed that they:

- validated their practice as a result of the PR (71.7%)
- treat the patient as a whole, not as a set of symptoms (50.7%)
- improved their overall communication approach to patients (53.7%)

In the area of attitude and approach to patients, the PR97/98 participants agreed more than they disagreed with all 5 statements on the questionnaire.

**Changes in Pharmacy Practice, PR97/98.** Pharmacists agreed that they:

- identified areas of strength in their practice (68.6%)
- identified areas requiring improvement in my practice (76.1%)
- identified weaknesses and made changes to accommodate these issues (70.1%)

In the area of changes in practice, pharmacists who took the PR97/98 agreed more than they disagreed with all 8 statements.

It should be noted that the area of changes in practice is the one most closely associated with the main question of impact of the PR.



Finally, pharmacists who took the PR in 97/98 were asked to comment on their perceptions of the QAP as a whole.

**Quality Assurance as a Whole, PR97/98.** Pharmacists agreed that they:

- believe quality assurance as a whole is positive for the profession (94.1%)
- believe QAP contributed to improved communication skills for pharmacists (83.6%)
- believe that the QAP contributes to pharmacists being more responsible to the public (88.1%)

Pharmacists strongly agreed with all statements in this area of the questionnaire.

A number of the key outcome variables in each of the sections of the questionnaire were correlated with selected variables reflecting the profile/characteristics of pharmacists who had answered the questionnaire. The profile variables included age, years of practice, type of pharmacy practise (retail, institutional) and place of education (Canadian trained, other) and position in pharmacy (staff, manager/owner). The correlations were done initially using Pearson's correlation coefficient and subsequently using stepwise multiple regressions.

In the PR97/98 group, it was found that pharmacists who were older were more likely to identify gaps in their knowledge as a part of the PR compared to pharmacists who are younger. Similarly, pharmacists who worked in retail were more likely to be encouraged to apply their knowledge to their practice as a result of PR compared to other pharmacists outside of retail. In the section of questions on attitude/approach to patients, two profile variables (place of graduation and type of work environment) were correlated with the PR's influence on the overall communication approach to patients. Pharmacists who graduated outside of Canada and pharmacists who work in hospital/long term care facilities were more likely than others to feel that the PR improved their overall approach to patients.

Similarly, in the next section of the questionnaire on changes in practice, we found two statistically significant correlations.

"As a result of the PR, I have identified areas of strength in my practice." This statement correlated significantly with the country of graduation.

- Pharmacists who graduated with a degree in pharmacy from outside of Canada agree more with this statement ( $r = .340$ ; significance = .005)

"As a result of the PR, I have identified areas requiring improvement in my practice." This statement correlated significantly with the country of graduation and the years in pharmacy practice.

- Pharmacists who graduated with a degree in pharmacy from outside of Canada agree more with this statement ( $r = .299$ ; significance = .015;)



- Pharmacists who have practiced for a greater period of time agree more with this statement ( $r = -.243$ ; significance = .047)

When all profile variables were used together in multiple regression to measure their influence on outcomes, a number of profile variables emerged as key. **Type of practice was significant** and pharmacists who worked in community retail settings were more likely to change their practice than others. This same explanatory relationship emerged with respect to improving the overall communication approach with patients. Finally two changes in practice outcomes had one common significant independent variable influencing them in the regression model. Changes identified with the statements I “Identified strengths in my practice” and “identified areas requiring improvements in my practice” were explained by one dominant independent variable namely **foreign trained respondents**.

A variety of **qualitative statements** were also given to HCA interviewers during the survey. These have been recorded and analyzed in the report.

In the KIA area, general comments suggested largely positive support for the PR because they reinforced positive things pharmacists were already doing. There were no comments in the attitude and approach to patients, and changes in practice section. In the QA as a whole section, negative comments were in the minority but suggested that not all the change could be attributed to QA. In addition people often referred to the feeling of fear and intimidation surrounding the PR. Positive comments referred to the whole process as being positive and the importance of continuous improvement in the profession. There were also positive comments on the overall validating role of the PR in pharmacy practice. Finally some of the respondents did not feel the PR exam was realistic and suggested change.

The strongest statements of support for PR came in the changes in practise session. This group (97/98 PR) was more likely to agree with statements on changes in practise on average than the PR2002 group or the SA2002 group. This group also had very strong support for PR as a whole compared to the other surveyed groups

### Section 3

Some key results for the pharmacists who had not taken the PR but had done the **Self Assessment (SA) survey in 2002** are as follows: Once they were selected to do the SA they became part of the pool that could have been selected at random for the PR. However, this group was lucky enough not to be selected.

This group was mailed a questionnaire while the PR groups were interviewed via telephone. In total we analyzed 322 mailed questionnaires, a much larger sample



than in the case of the PR. The mailed questionnaire was longer than the phone questionnaire. The pharmacists were asked to indicate the influence of the QA Program. This acts as a comparison group for the impact of the QAP without the PR.

**Knowledge Improvement Activities, SA2002.**(KIA) Pharmacists agreed that :

- they had researched and read from various source including pharmaceutical journals. (77.9%)
- they identified gaps in their general knowledge (76.5%)
- they made a conscious effort to update their learning portfolio (81.9%)
- they had identified areas of practice that had been neglected (69.7%)
- they increased attendance at continuing education activities (77.9%)

In the area of KIA, the SA2002 group was more likely to agree than disagree with 12 out of 19 statements in the questionnaire. The areas of disagreement were strongest in respect to the role of SA in promoting more certification, attending more disease state clinics, using palm pilots etc.

**Attitude and Approach to Patients, SA2002.** Pharmacists agreed that they:

- improved their general awareness of the importance of communicating with patients increased (69.0%)
- increased communication and interaction with patients (64.6%)
- improved their overall communication approach to patients (68.0%)

In the area of attitude and approach to patients, the SA2002 participants agreed more than they disagreed with all 6 statements on the questionnaire.

**Changes in Pharmacy Practice, SA2002.** Pharmacists agreed that they:

- identified areas of strength in their practice (77.1%)
- identified areas requiring improvement in their practice (79.6%)
- developed a priority to life long learning (82.8%)

In the area of changes in practice, pharmacists who took the SA2002 agreed more than they disagreed with all 16 of 17 statements.

It should be noted that the area of changes in practice is the one most closely associated with the main question of impact of the PR.

Finally, pharmacists who took the SA in 2002 were asked to comment on their perceptions of the QAP as a whole.

**Quality Assurance as a Whole, SA2002.** Pharmacists agreed that they :

- believe quality assurance as a whole is positive for the profession (82.2%)



- believe QAP contributes to improved communication skills for pharmacists (67.5%)
- believe that the QAP contributes to pharmacists being more responsible to the public (68.8%)

Pharmacists strongly agreed with all statements in this area of the questionnaire.

### **Influences of the PR. SA2002**

Even though this group did not take the PR they were asked if it influenced them. In summary it had, as it motivated them to update their learning portfolio (80.9%), identify areas requiring development in their practise (78.9%), and identify areas to focus their professional development (70.8%).

A number of the key outcome variables in each of the sections of the questionnaire were correlated with selected variables reflecting the profile/characteristics of pharmacists who had answered the questionnaire. The selected profile variables included age, years of practice, type of pharmacy practise (retail, institutional), place of education (Canadian trained, other) and position in pharmacy (staff, manager/owner). The correlations were done initially using Pearson's correlation coefficient and subsequently using stepwise multiple regressions. Since level of significance is strongly influenced by sample size, and this was a larger group, there is more statistical significance.

In the SA2002 group, the following profile variables were significant:

- it was found that age was a significant factor with older pharmacists benefiting more from QA.
- Years of practice had a similar influence.
- Pharmacists educated outside of Canada experience more impact than others.
- Respondents working in hospital long term care facilities experienced more impact
- Owners, directors, managers experienced more influence than others

When all these profile variables were combined in a multiple regression, the most significant independent variable influencing outcomes was age with older pharmacists and they were more likely to agree with the QAP. Country of graduation played a secondary role with foreign trained respondents experiencing more impact. In the areas of communications with patients and changes in practice, community/retail practice pharmacists also were more impacted by the QAP than were hospital/long term care pharmacists.

A variety of **qualitative statements** were also written. Many comments suggested there was little change as a result of the QAP because people already had a quality practice. In addition, many people noted that the profession was changing and pushing them to change independent of the College's influence.



Negative comments related to the stress caused by the QAP and the PR. Positive comments often referred to the support for pharmacists provided by the QAP. General comments suggested largely positive support for PR because they reinforced positive activities pharmacists were already doing. There were no comments in the attitude and approach to patients, and changes in practice section. In the QA as a whole section, negative comments were in the minority but suggested that not all the change could be attributed to QA. In addition people often referred to the feeling of fear, intimidation surrounding the PR. Positive comments referred to the whole process as being positive and the importance of continuous improvement in the profession. There were also positive comments on the overall validating role of the PR in pharmacy practice. Finally some of the respondents did not feel the PR exam was realistic and suggested change.

### Summary of SA2002

This group experienced a strong influence from the QAP as a whole without doing the PR. They made changes as a result of QA in general and because of their knowledge of PR as a possible future activity for them.

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In summary, the PR had the greatest impact on the PR97/98 group. They were quite positive about practice changes influenced by the PR. Similar results were gathered in the focus group with the PR97/98 group (HCA, 2003). Several profile variables were also excellent explainers for the impacts identified. Foreign trained and community based retail pharmacists experienced a greater impact than others from the PR. In general the impacts reported are significantly greater than the impacts reported on the PR2002 group. It is possible that the timing of this evaluation (5 years after the PR exam) allowed people to become more accepting of PR and to experience more impact.

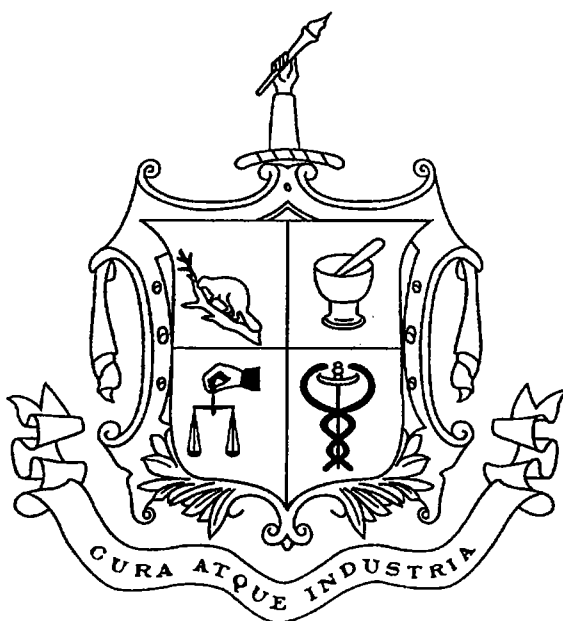
However, the greatest impact of the PR seems to be the strong support for Quality Assurance as a whole that emerges from groups that have taken the PR. The two PR groups had 10 percentage points of additional support for QAP as a whole when compared to the SA2002 group.

There is also strong support for QA among the SA2002 group. They seem to be positively impacted by the QAP and support it. They are also very aware of PR and have made changes in response to it.



# Ontario College of Pharmacists

## Practice Review



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### Performance Report

Candidate # 0000

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# Ontario College of Pharmacists Practice Review

**Candidate # 0000**

## Performance Summary Table

<b>Components</b>	<b>Cut-score</b>	<b>Your Score</b>	<b>Your Status</b>
<b>Clinical Knowledge Written Assessment</b>	<b>39</b>	56	Successful
<b>Patient Interviews: Gathering Information</b>	<b>12</b>	20	Successful
<b>Patient Interviews: Patient Management / Follow Up</b>	<b>15</b>	21	Successful
<b>Patient Interviews: Communication Skills (Satisfactory Performance on 3 of 5 domains)</b>	<b>3/5</b>	5	Successful



# Ontario College of Pharmacists

## Practice Review

### Candidate Performance Report

#### Introduction

An important part of the Practice Review is to provide feedback to the candidates regarding each assessment component. The first component of the Review dealt with the **Self-Assessment Survey**. As you may recall, the purpose of the Self-Assessment was to help you identify areas, which could benefit from further professional development. A second purpose of the Survey was to help determine the continuing education needs of the profession at large.

During your day at the College, you were given an opportunity to discuss the value of the **Professional Profile** and **Learning Portfolio** as a tool to structure and document your professional development.

This Report will address your responses to the **Self-Assessment Survey** and the **four performance-based components** of the Practice Review:

#### **The Self- Assessment Survey:**

The first graph in your feedback package (**Figure 1**) allows you to compare your "learning needs" to those identified by a representative sample of pharmacists from across Ontario. This graph depicts both your individual mean and the overall group mean for each subsection of the survey. Your **mean** was calculated by summing up the individual item scores in each subscale and then dividing the sum by the total number of items for that section. Keep in mind that any subscale approaching a mean of 1.00 indicates an area, which would benefit from further study. Finally, please note areas where you are particularly strong in comparison to the whole group.

#### **The Four Performance Based Components of the Practice Review: How was your performance evaluated?**

Each component of the Practice Review was designed, developed and reviewed by a host of Pharmacy professionals. These individuals represented community pharmacy, hospital pharmacy, and educational institutions. In addition, practitioners representing all parts of Ontario and the full range of professional maturity make up the development and assessment teams.

One of the most significant developments in the assessment of health professionals has been the adoption of **criterion-referenced scoring**. In the context of the Practice Review, criterion-referenced scoring compares an individual's performance against a standard set by the profession rather than the performance of other test takers or some arbitrary pass score. The critical component of criterion-referenced scoring is its reliance on professional judgment. The standards which candidates must meet in the Practice Review are set by practitioners who are representative of the scope of professional practice. In this system it is possible for all candidates to achieve high scores. The scoring system for the Practice Review does not "bell-curve" candidate performance or have a predetermined number of candidates who must fall below the cut-score for each component.



## **Applying the Cut-Score Setting Procedure**

For each of the **four performance-based components**, your performance was compared to a standard set by a committee of pharmacists. The cut-score setting committee for the Clinical Knowledge Assessment and the Standardized Patient Interviews first reviewed the assessment materials to ensure that they reflected tasks or skills that would be found in everyday practice. For each assessment item, a group of representative pharmacists was asked to estimate the percentage of minimally competent practitioners that would get the item correct. The data collected helped determine a cut-off score for each of the four practice review components (i.e. Clinical Knowledge, Gathering Information, Patient Management and Education and Communication). A candidate score, which meets or exceeds the cut-score for a particular component indicates that the candidate has met the expectations for that particular skill.

### **Clinical Knowledge Assessment Component:**

This component of the Practice Review involved 15 cases each containing 4 multiple-choice questions. The accompanying graph (**Figure 2**) entitled "Clinical Knowledge" depicts your mean performance for each of the cases in comparison to the group mean for each case. For example, if you had chosen the correct response for 3 of the 4 questions for a particular case, your score would be 75%. In addition to providing performance information on individual cases, your overall performance on this component is also depicted.

In reviewing your score on this component please remember that the **primary objective** of this open-book assessment is to help determine your ability to

- **Identify the key issues given in a set of patient data**
- **Successfully use the information resources available to you to correctly answer the questions presented in the case.**

Given the few questions related to the various disease states presented in the cases, the assessment results are best interpreted as your ability to identify patient issues and to effectively find information related to those issues rather than a determination of your true knowledge level in any specific disease category.

### **Standardized Patient Interviews**

For the Standardized Patient Interviews, a pharmacist assessor evaluated your performance on the following three components:

- 1) Gathering Information Skills**
- 2) Options/ Patient Management/ Follow-up Skills**
- 3) Communication Skills**

### **Gathering Information Component:**

**Figure 3**, represents your performance for the Gathering Information component. This section of the review assessed your ability to interview the patient and collect relevant information. When examining your score in **Figure 3**, please note that your performance for this component was summed across all the cases you encountered.



### **Options/ Patient Management/ Follow-up Skills Component:**

**Figure 4**, represents your performance for the Options, Management and Follow-up component. This section of the review assessed your ability to counsel/educate the patient where appropriate and suggest or provide follow-up. As with Gathering Information, your performance for this component was summed across all cases encountered.

For both Figures 3 and 4 the horizontal axis of the graph depicts the range of candidate scores. An **asterisk** above one of the vertical bars designates the **location of your score**. The value at the bottom of the vertical bar is the actual numeric value of your score. The graph's vertical axis labeled "**Frequency**" indicates how many candidates earn each of the possible scores found on the horizontal axis. Finally, the cut-score for each component is indicated. Scores to the right of the line meet or exceed the cut-score while scores to the left of the line fall below the cut-score.

### **The Communication Skills Component:**

The Communication Rating Scale is divided into **five domains**:

- Response to the patient's feelings and needs (empathy)
- Degree of coherence in the interview
- Verbal expression
- Non-verbal expression
- Overall assessment of the knowledge and skills demonstrated in the interview

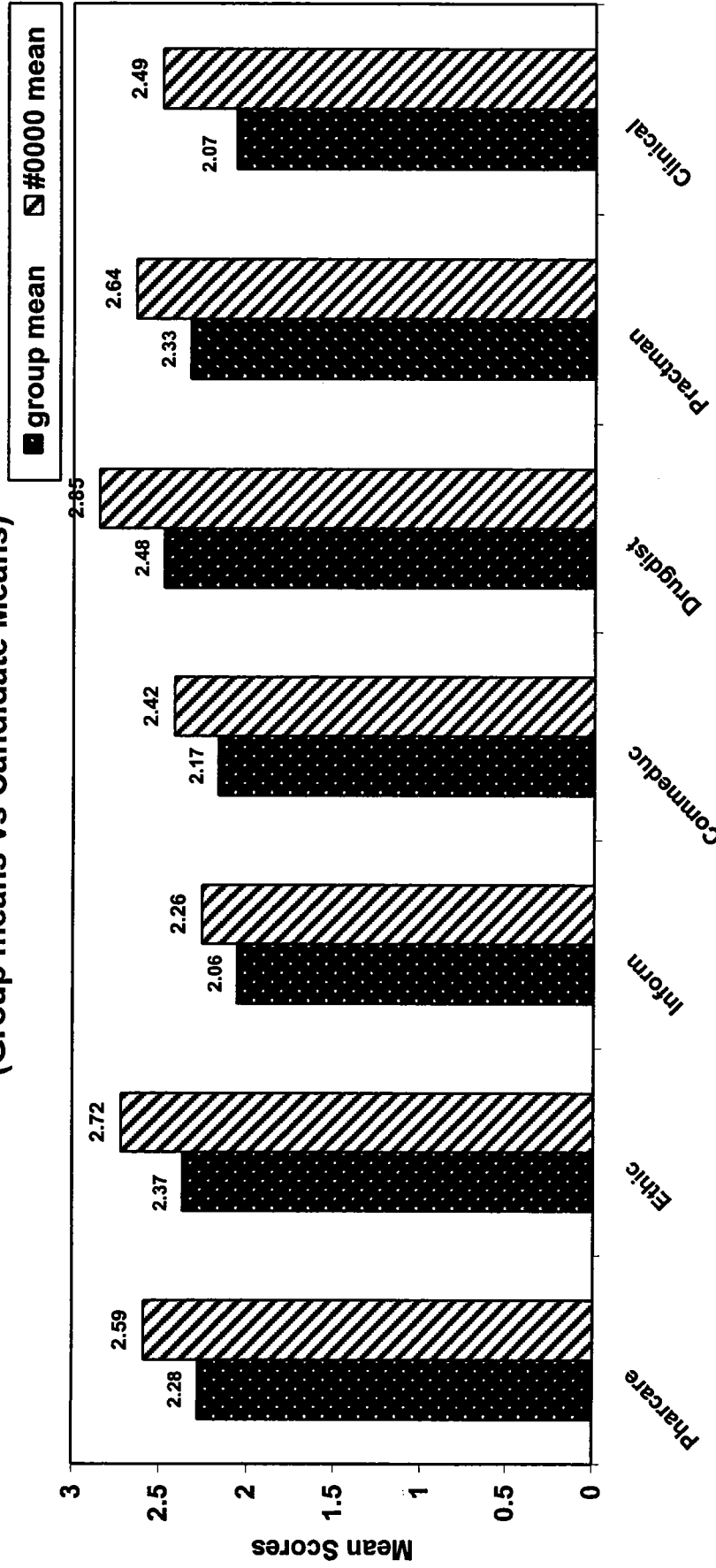
For each of the five communication domains, assessors rated your performance on a scale ranging from 1 "unsatisfactory" to 5 "excellent". Your performance for each of these domains was summed across the cases encountered. Therefore, the maximum score a candidate could earn for any domain would be 25 (5 cases X the maximum of 5 marks per domain). For each of the five domains, a cut-score of 12.5 was set. In order to be successful in the Communication area, a candidate was required to meet or exceed the cut-score on three of the five Communication domains. **Figure 5**, reports your performance on the Communication Scale. As you can see, a black horizontal line cuts across the graph indicating the cut-off score of 12.5. **Your actual score for each domain is reported just above the vertical bars**. Any score at or above 12.5 indicates that you met the cut-score for that particular domain. In each of the five domains you will notice a **pair of vertical bars**: the first bar in the pair depicts the mean score for all the candidates who experienced the Practice Review with you while the second bar in the pair depicts your own performance.

### **Summary**

The process of life-long professional development begins with an assessment of an individual's knowledge and skills. This assessment has attempted to provide you with a profile of your strengths and weaknesses related to a set of select but central skills in pharmacy practice. It is our hope that the information will be of value to you as you plan your on-going professional development.



**Figure 1: Ontario College of Pharmacists Practice Review  
Self-Assessment Summary  
(Group means vs Candidate Means)**



**Combined Subscales**

**KEY**

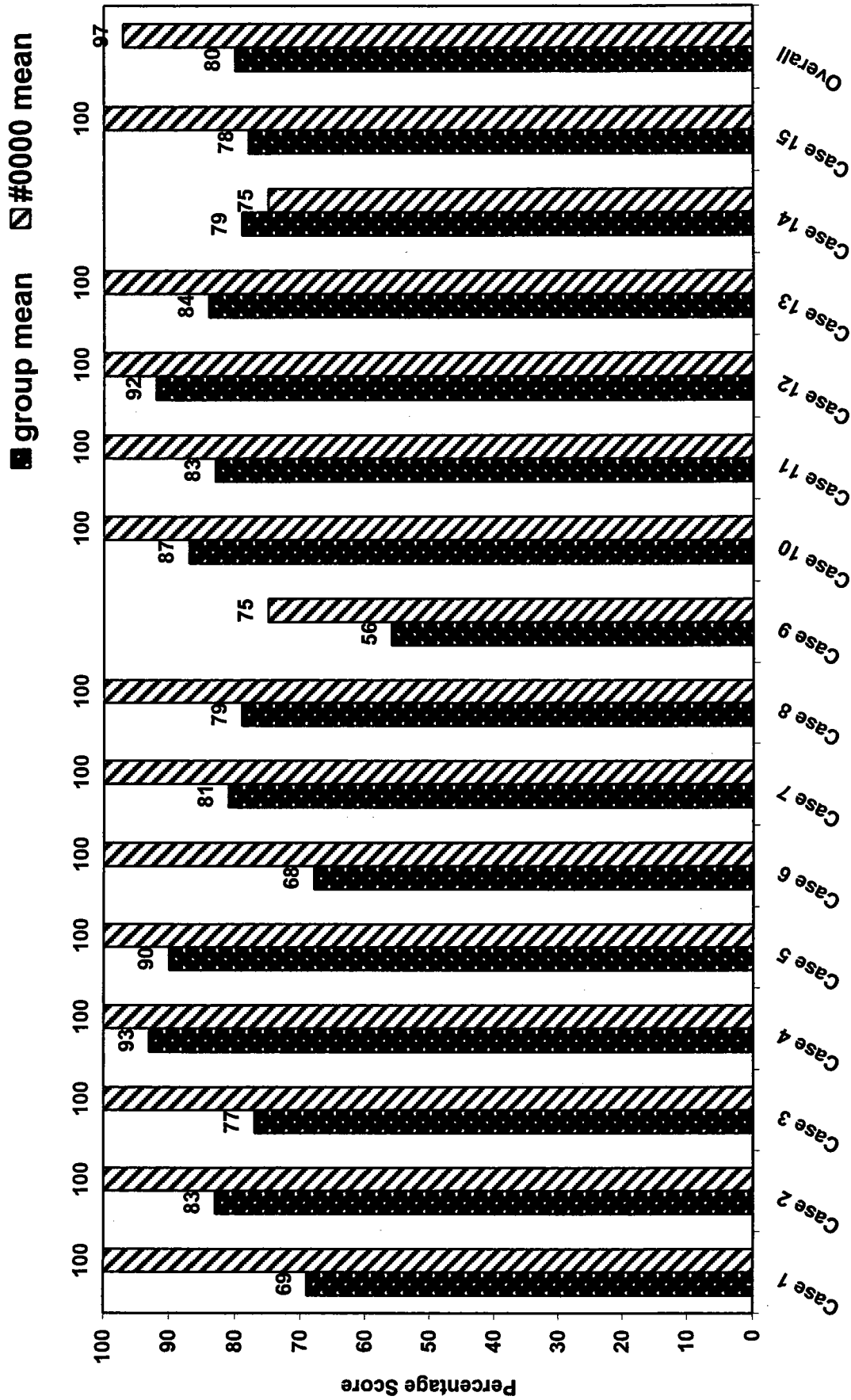
- Pharmacare:** Pharmaceutical Care
- Ethic:** Ethical, Legal and Professional Responsibilities
- Inform:** Assess, Retrieve, Evaluate and Disseminate Information
- Commeduc:** Communicate and Educate Effectively
- Drugdist:** Manage Drug Distribution
- Practman:** Practice Management Knowledge and Skills
- Clinical:** Clinical Knowledge

**Choices for survey rating:**

- 1: I would benefit from assistance in this area
- 2: I do not feel I need assistance in this area
- 3: I feel particularly strong in this area



**Figure 2: Ontario College of Pharmacists Practice Review  
Clinical Knowledge Assessment**



**KEY**

- Case 1: Psychotherapy / Drug Abuse
- Case 2: Anti-Infective / Dental
- Case 3: GI / Diarrhea
- Case 4: Psychotherapy / Dementia
- Case 5: Cardiovascular / Antihyperlipidemia

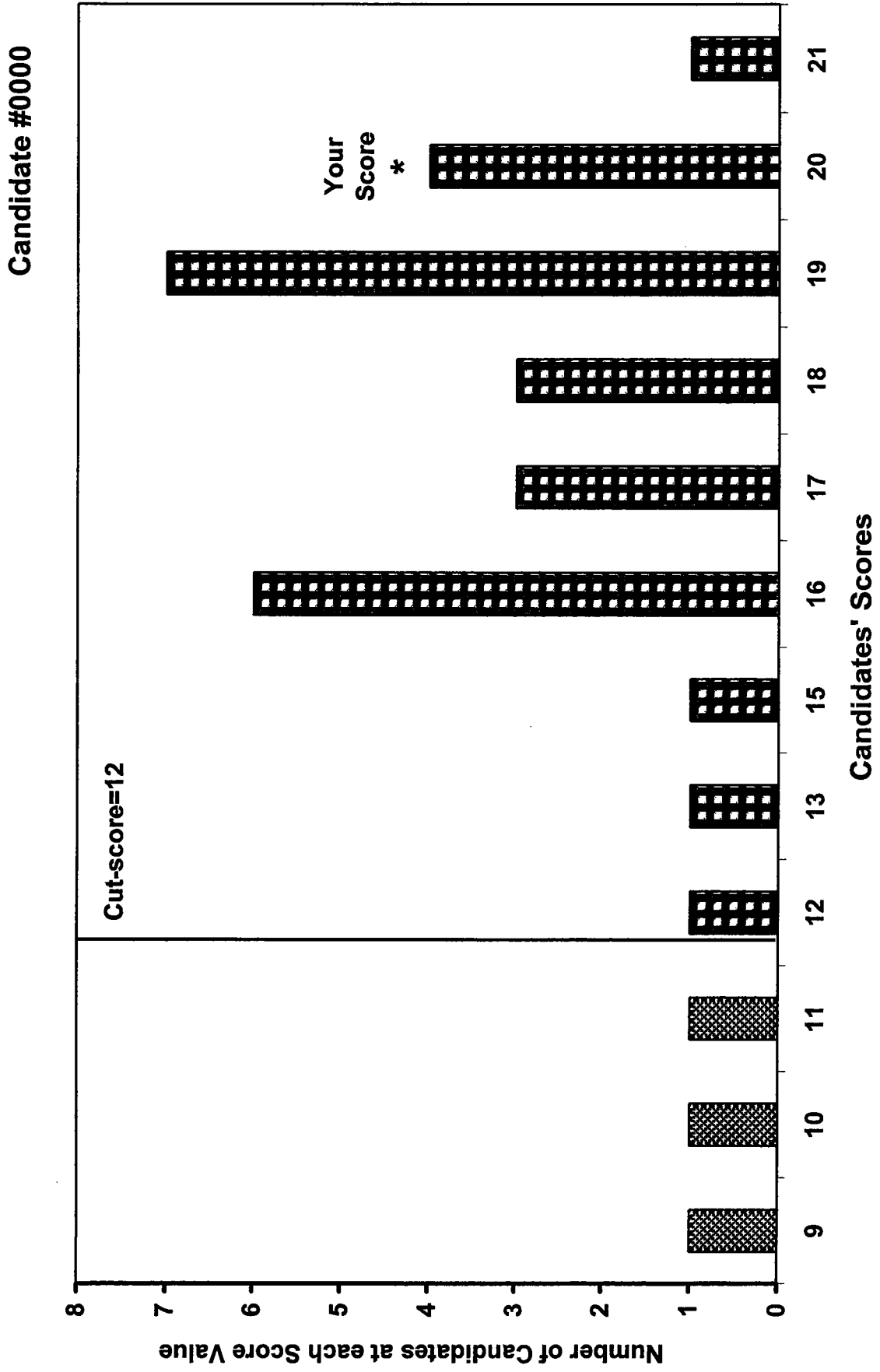
**Cases**

- Case 6: Antiarthritic – Rheumatoid
- Case 7: Pregnancy / Lactation
- Case 8: Respiratory / Cough / Cold
- Case 9: Anti-Infective / Pneumonia
- Case 10: Antiarthritic – Autoimmune

- Case 11: Hormone / Thyroid
- Case 12: Cardiovascular / Angina
- Case 13: GI / Irritable Bowel / Diarrhea
- Case 14: Cardiovascular / CHF
- Case 15: Neurological / Migraine
- Overall: % Across all 15 Cases

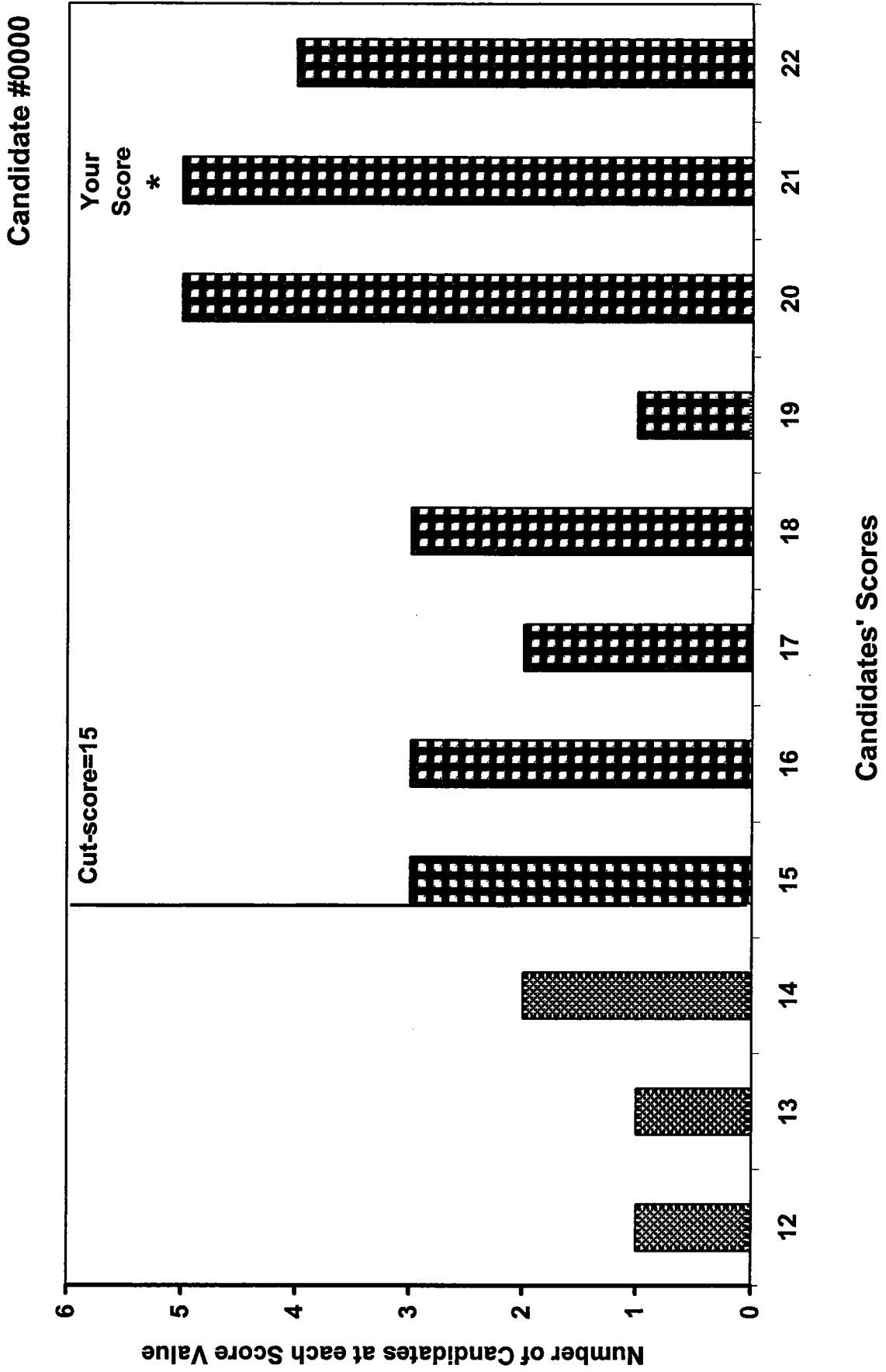


**Figure 3: Gathering Information Domain - ALL CANDIDATES  
 Combined Scores Across ALL SCENARIOS**



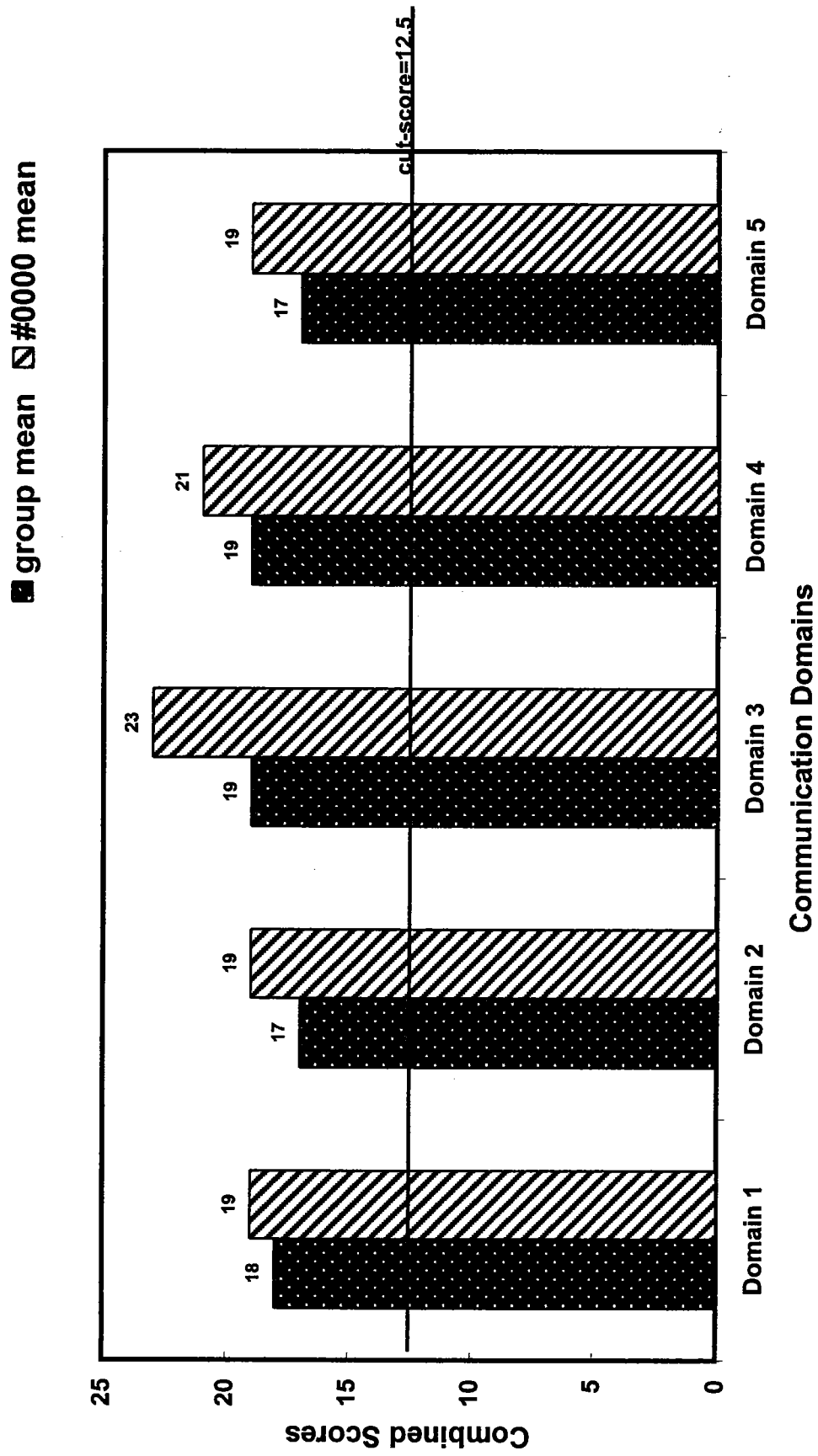


**Figure 4: Options, Management and Follow up Domain - ALL CANDIDATES  
 Combined Scores Across ALL SCENARIOS**





**Figure 5: Ontario College of Pharmacists Practice Review  
Communication Scale  
Performance Across All Scenarios**



- Key:**
- Domain 1 : Response to Patient's Feelings and Needs (Empathy)
  - Domain 2 : Degree of Coherence in the Interview
  - Domain 3 : Verbal Expression
  - Domain 4 : Non verbal Expression
  - Domain 5 : Overall Assessment of the Knowledge and Skills Demonstrated in the Interview

